STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL	
	1. WELL NAME and NUMBER NBU 921-35I1BS
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	**3. FIELD OR WILDCAT** NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO	**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.	**7. OPERATOR PHONE** 720 929-6007
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217	**9. OPERATOR E-MAIL** Kathy.SchneebeckDulnoan@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 22582 — **11. MINERAL OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○	**12. SURFACE OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') — **18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ◉ (Submit Commingling Application) NO ○	**19. SLANT** VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2106 FSL 794 FEL	NESE	35	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	2572 FSL 496 FEL	NESE	35	9.0 S	21.0 E	S
At Total Depth	2572 FSL 496 FEL	NESE	35	9.0 S	21.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 496	**23. NUMBER OF ACRES IN DRILLING UNIT** 321
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 604	**26. PROPOSED DEPTH** MD: 9657 TVD: 9599
27. ELEVATION - GROUND LEVEL 5059	**28. BOND NUMBER** 22013542	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**	☑ **COMPLETE DRILLING PLAN**
☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**	☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**	☑ **TOPOGRAPHICAL MAP**

NAME Danielle Piernot	**TITLE** Regulatory Analyst	**PHONE** 720 929-6156
SIGNATURE	**DATE** 11/23/2010	**EMAIL** gnbregulatory@anadarko.com
API NUMBER ASSIGNED 43047513690000	**APPROVAL** Permit Manager	

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	9657		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 Buttress	9657	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	11	8.625	0	2530		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2530	28.0			

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-35I1BS

Surface:	2106 FSL / 794 FEL	NESE
BHL:	2572 FSL / 496 FEL	NESE

Section 35 T9S R21E

Unitah County, Utah
Mineral Lease: ST UT ML 22582

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1391	
Birds Nest	1705	Water
Mahogany	2080	Water
Wasatch	4665	Gas
Mesaverde	7414	Gas
MVU2	8268	Gas
MVL1	8836	Gas
TVD	9599	
TD	9657	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 9,599' TVD, approximately equals 5,881 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,769 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie

line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047513690000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	November 17, 2010	
WELL NAME	**NBU 921-35I1BS**		TD	9,599' TVD	9,657' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	5,058'
SURFACE LOCATION	NESE	2106 FSL 794 FEL	Sec 35 T 9S R 21E		
	Latitude: 39.99111	Longitude: -109.511618		NAD 27	
BTM HOLE LOCATION	NESE	2572 FSL 496 FEL	Sec 35 T 9S R 21E		
	Latitude: 39.992401	Longitude: -109.510555		NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			11"	8-5/8", 28#, IJ-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @	1,391'
Top of Birds Nest @	1,705'
Mahogany @	2,080'
Preset f/ GL @	2,530' MD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @	4,665'
Mverde @	7,414' TVD
MVU2 @	8,268' TVD
MVU1 @	8,836' TVD

Mud logging program TBD
Cased hole logging program from TD - surf csg

	7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC csg	Water / Fresh Water Mud 8.3-12.0 ppg

Max anticipated Mud required 12.0 ppg

TD @ 9,599' TVD 9,657' MD

'APIWellNo:43047513690000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,530	28.00	IJ-55	LTC	0.87	1.59	4.86
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9,657	11.60	I-80	BTC	2.01	1.06	2.84

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.13

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,769 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,881 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,030'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,157'	Premium Lite II +0.25 pps	300	10%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,500'	50/50 Poz/G + 10% salt + 2% gel	1,060	10%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

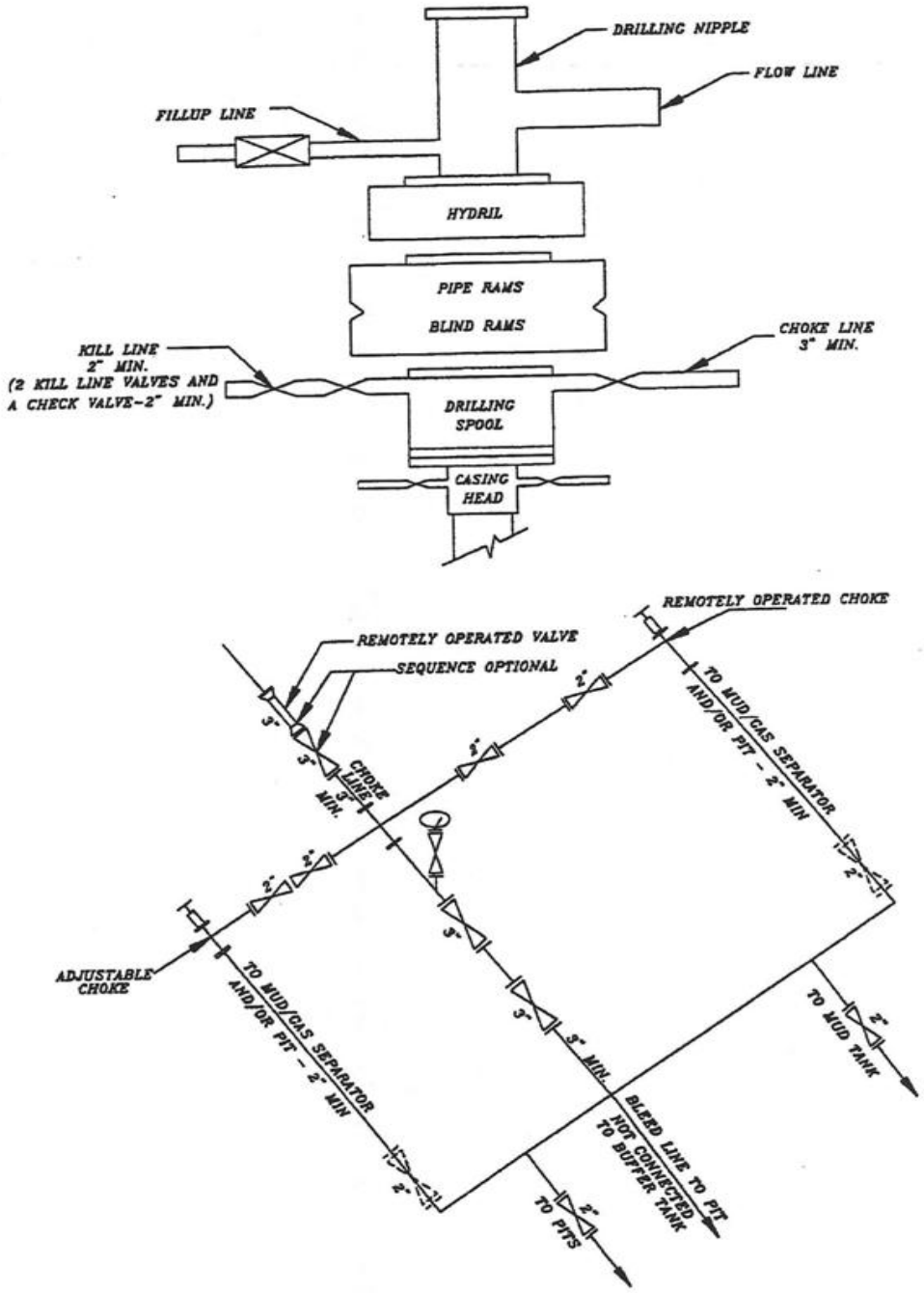
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

'APIWellNo:43047513690000'

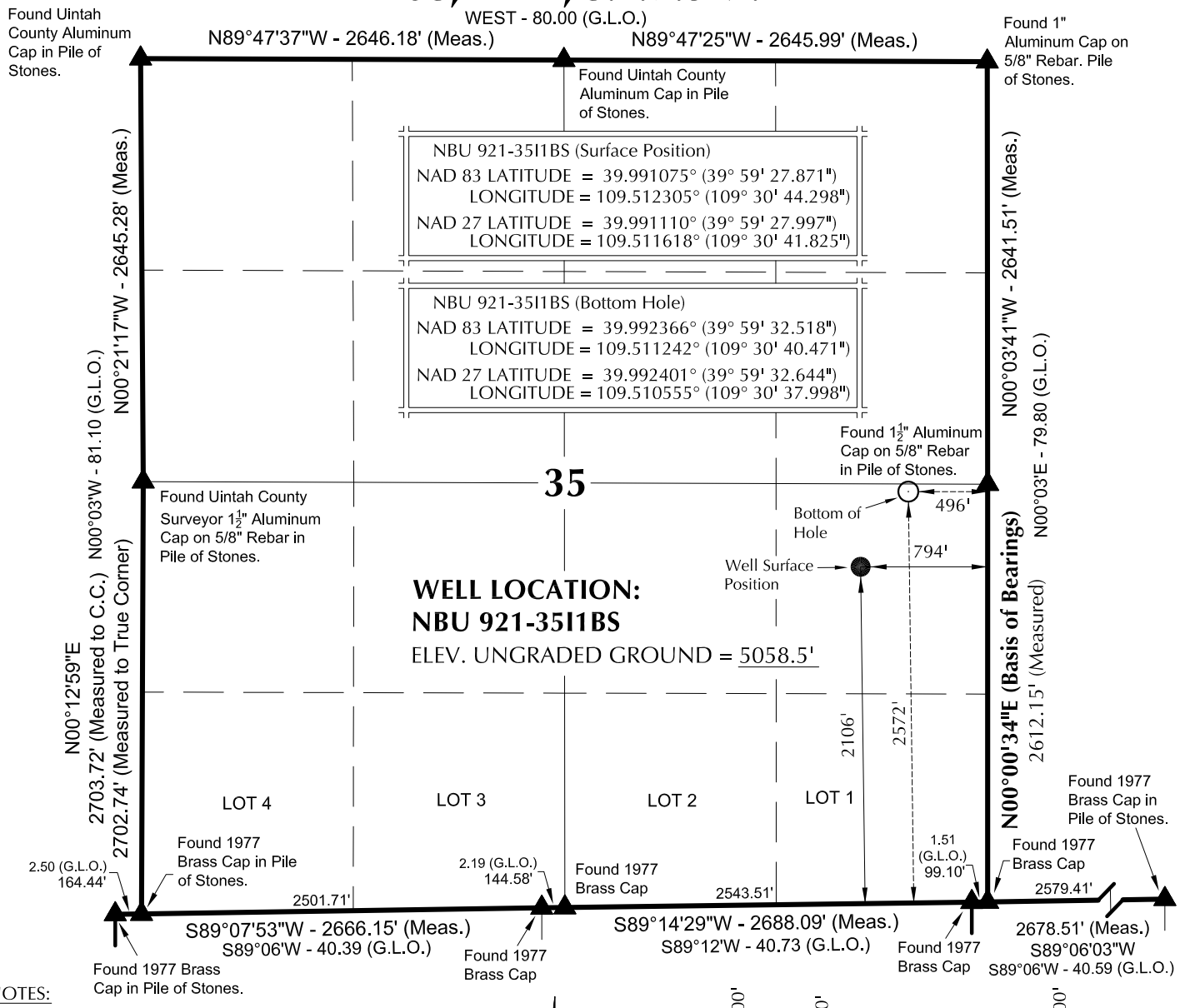
EXHIBIT A
NBU 921-35I1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047513690000'

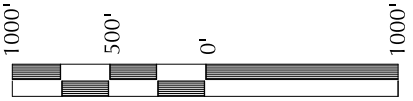
T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears N32°23'13"E 556.76' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR
No.6028691
JOHN R
LAUGH
STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 921-35I

NBU 921-35I1BS
WELL PLAT
2572' FSL, 496' FEL (Bottom Hole)
NE ¼ SE ¼ OF SECTION 35, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

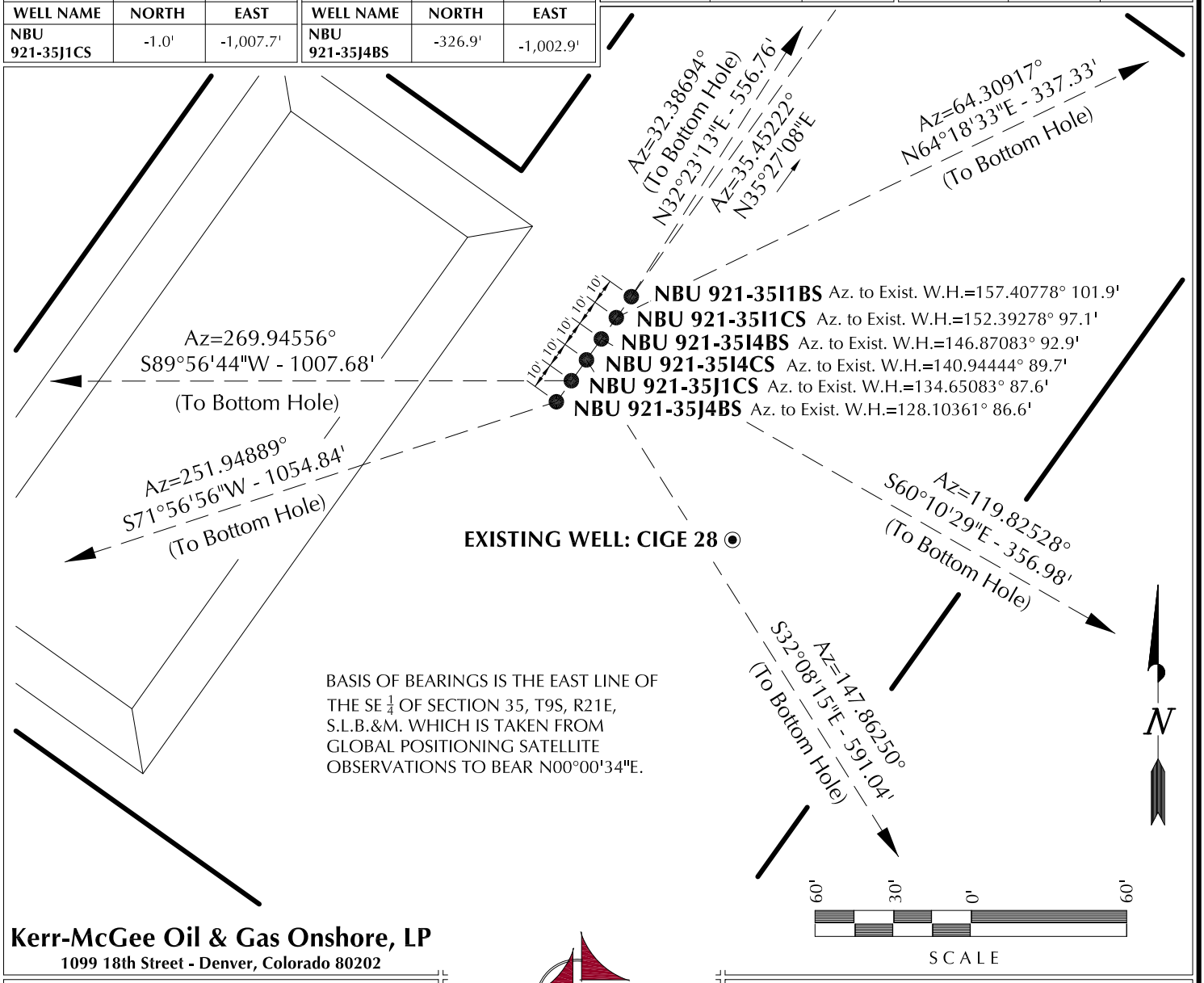
DATE SURVEYED: 09-27-10	SURVEYED BY: D.J.S.	SHEET NO: 1
DATE DRAWN: 09-29-10	DRAWN BY: M.W.W.	1 OF 18
SCALE: 1" = 1000'	Date Last Revised:	

'APIWellNo:43047513690000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 921-35I1BS	39°59'27.871" 39.991075°	109°30'44.298" 109.512305°	39°59'27.997" 39.991110°	109°30'41.825" 109.511618°	2106' FSL 794' FEL	39°59'32.518" 39.992366°	109°30'40.471" 109.511242°	39°59'32.644" 39.992401°	109°30'37.998" 109.510555°	2572' FSL 496' FEL
NBU 921-35I1CS	39°59'27.791" 39.991053°	109°30'44.373" 109.512326°	39°59'27.917" 39.991088°	109°30'41.900" 109.511639°	2098' FSL 800' FEL	39°59'29.237" 39.991455°	109°30'40.469" 109.511241°	39°59'29.363" 39.991490°	109°30'37.997" 109.510555°	2240' FSL 496' FEL
NBU 921-35I4BS	39°59'27.709" 39.991030°	109°30'44.447" 109.512346°	39°59'27.835" 39.991065°	109°30'41.974" 109.511659°	2090' FSL 806' FEL	39°59'25.957" 39.990544°	109°30'40.467" 109.511241°	39°59'26.083" 39.990579°	109°30'37.995" 109.510554°	1908' FSL 496' FEL
NBU 921-35I4CS	39°59'27.629" 39.991008°	109°30'44.521" 109.512367°	39°59'27.755" 39.991043°	109°30'42.048" 109.511680°	2082' FSL 811' FEL	39°59'22.686" 39.989635°	109°30'40.479" 109.511244°	39°59'22.812" 39.989670°	109°30'38.007" 109.510557°	1577' FSL 497' FEL
NBU 921-35J1CS	39°59'27.549" 39.990986°	109°30'44.595" 109.512388°	39°59'27.675" 39.991021°	109°30'42.123" 109.511701°	2074' FSL 817' FEL	39°59'27.534" 39.990982°	109°30'57.539" 109.515983°	39°59'27.660" 39.991017°	109°30'55.066" 109.515296°	2086' FSL 1825' FEL
NBU 921-35J4BS	39°59'27.469" 39.990964°	109°30'44.670" 109.512408°	39°59'27.595" 39.990999°	109°30'42.198" 109.511722°	2066' FSL 823' FEL	39°59'24.234" 39.990065°	109°30'57.550" 109.515986°	39°59'24.360" 39.990100°	109°30'55.077" 109.515299°	1752' FSL 1826' FEL
CIGE 28	39°59'26.941" 39.990817°	109°30'43.794" 109.512165°	39°59'27.067" 39.990852°	109°30'41.322" 109.511478°	2011' FSL 755' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST
NBU 921-35I1BS	470.2'	298.2'
NBU 921-35I1CS	146.2'	304.0'
NBU 921-35I4BS	-177.5'	309.7'
NBU 921-35I4CS	-500.5'	314.4'
NBU 921-35J1CS	-1.0'	-1,007.7'
NBU 921-35J4BS	-326.9'	-1,002.9'



BASIS OF BEARINGS IS THE EAST LINE OF THE SE $\frac{1}{4}$ OF SECTION 35, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°00'34"E.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35I

WELL PAD INTERFERENCE PLAT

WELLS - NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
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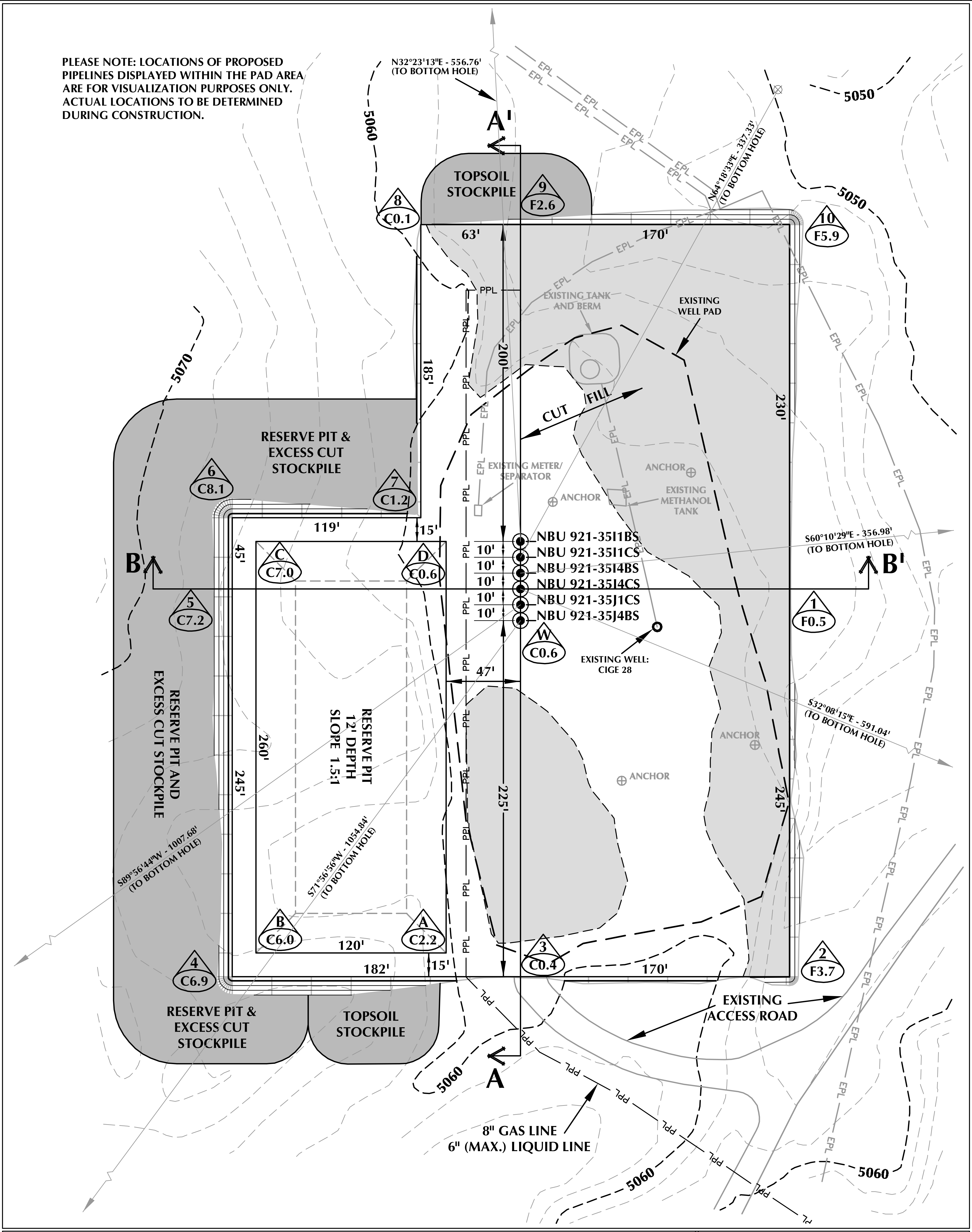
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-27-10	SURVEYED BY: D.J.S.	SHEET NO: 7
DATE DRAWN: 09-29-10	DRAWN BY: M.W.W.	7 OF 18
SCALE: 1" = 60'	Date Last Revised:	

'APIWellNo:43047513690000'



WELL PAD - NBU 921-35I DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5058.9'
FINISHED GRADE ELEVATION = 5058.3'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.56 ACRES
TOTAL DAMAGE AREA = 6.49 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 7,999 C.Y.
TOTAL FILL FOR WELL PAD = 4,064 C.Y.
TOPSOIL @ 6" DEPTH = 1,651 C.Y.
EXCESS MATERIAL = 3,935 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 11,020 CY
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,290 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

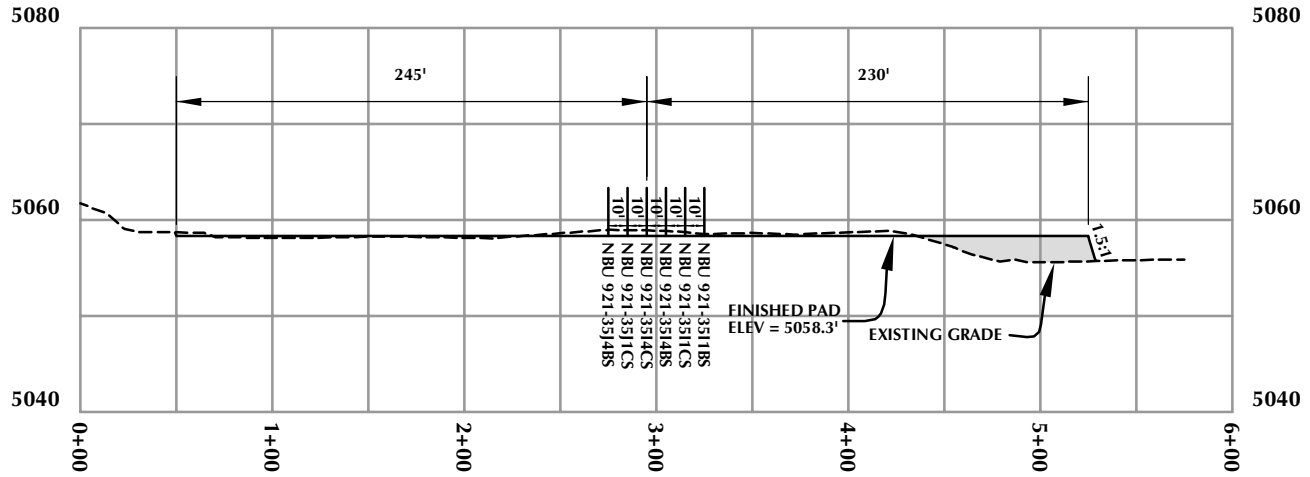
WELL PAD - NBU 921-35I

WELL PAD - LOCATION LAYOUT
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

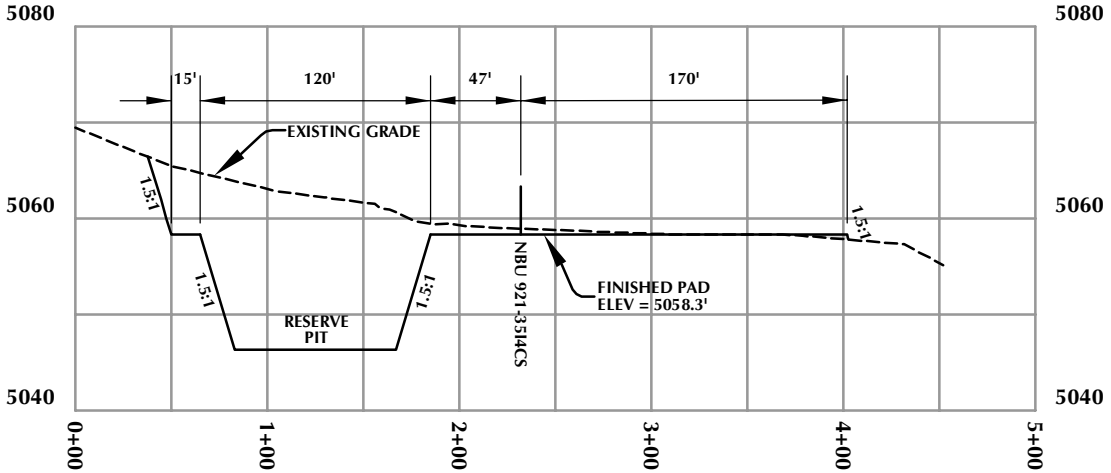
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60' | Date: 10/15/10 | SHEET NO: 8
REVISED:



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35I

WELL PAD - CROSS SECTIONS
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

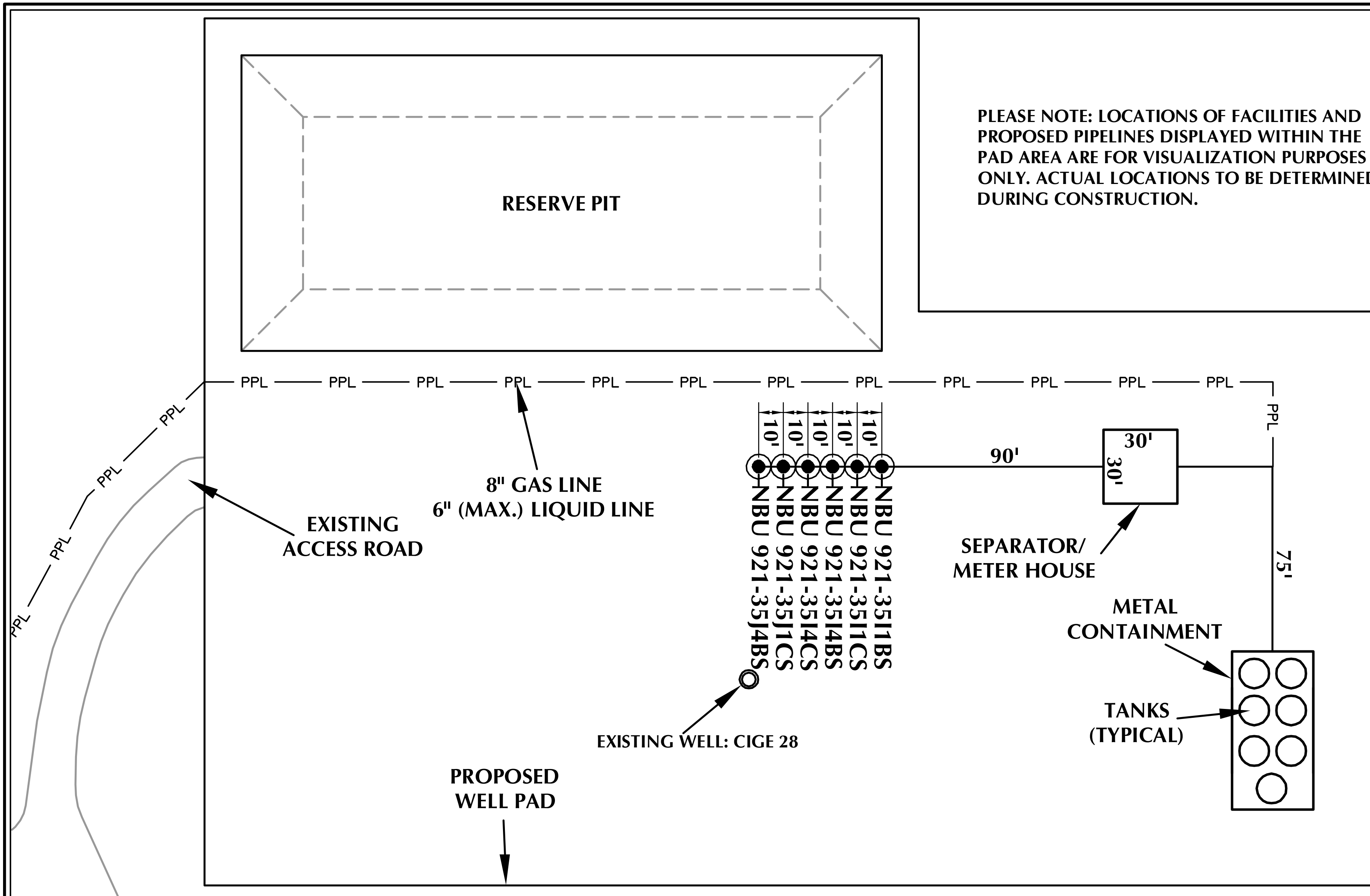
609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 10/15/10 | SHEET NO: 9
REVISED:
9 OF 18

'APIWellNo:43047513690000'
K:\ANADARKO\2010_53_NBU_FOCUS_SEC_921-35\DWG\NBU 921-35I\921-35I.dwg, 10/12/2010 11:40:39 AM



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35I

WELL PAD - FACILITIES DIAGRAM
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 10/19/10	SHEET NO: 10 — 10 OF 18
REVISED:		

'APIWellNo:43047513690000'

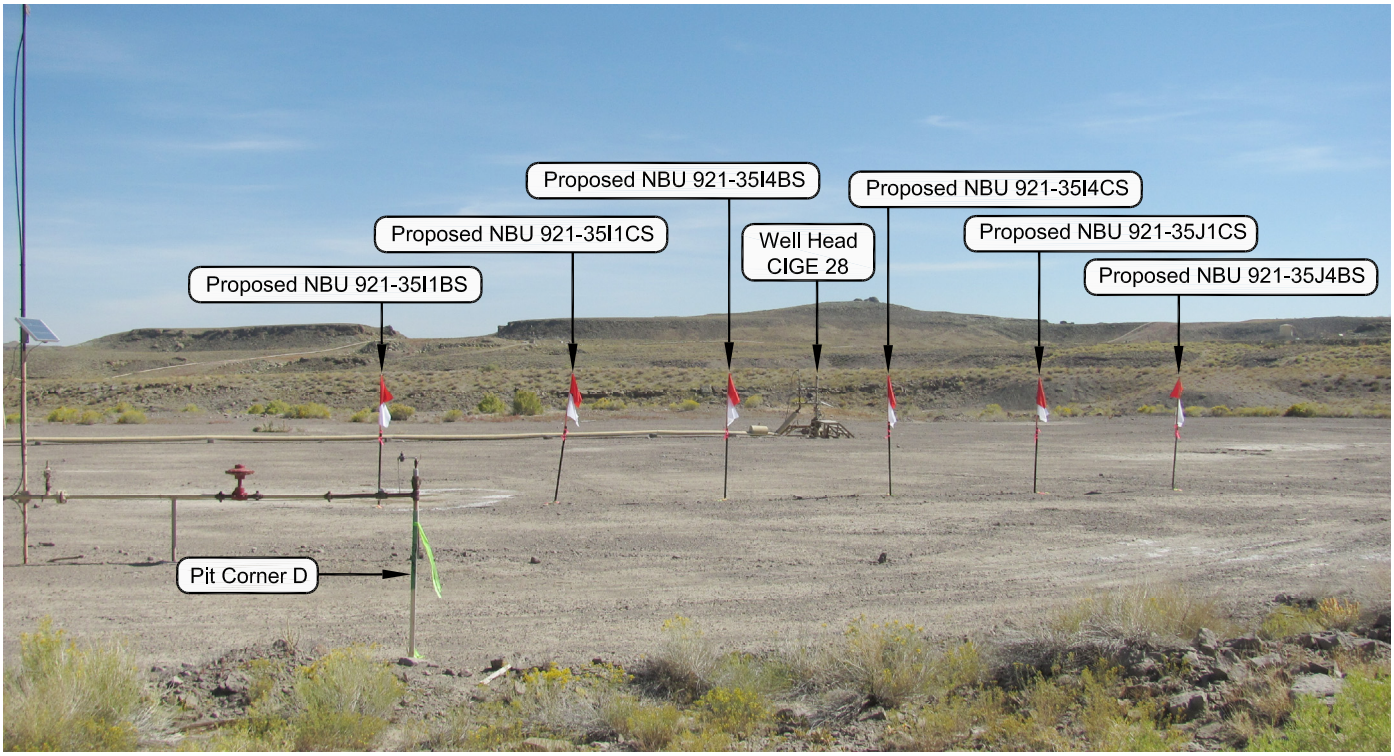

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: SOUTHEASTERLY**

PHOTO VIEW: FROM EXISTING ACCESS ROAD **CAMERA ANGLE: NORTHEASTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35I

LOCATION PHOTOS
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
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Sheridan WY 82801
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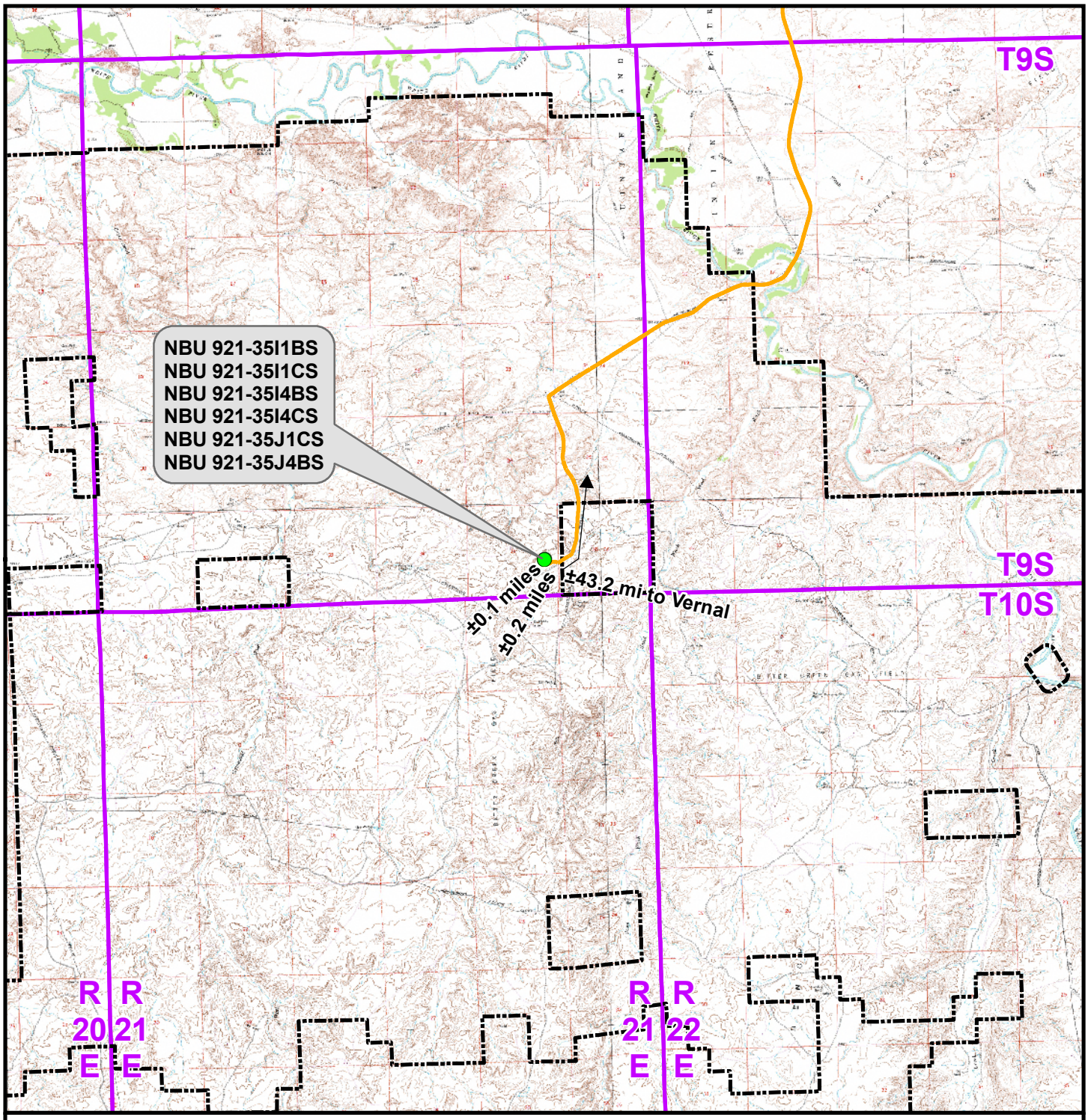
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 09-27-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 11
DATE DRAWN: 09-29-10	DRAWN BY: M.W.W.	
Date Last Revised:		11 OF 18

'APIWellNo:43047513690000'



Legend

Distance From Well Pad - NBU 921-35I To Unit Boundary: ±794ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

TOPO A

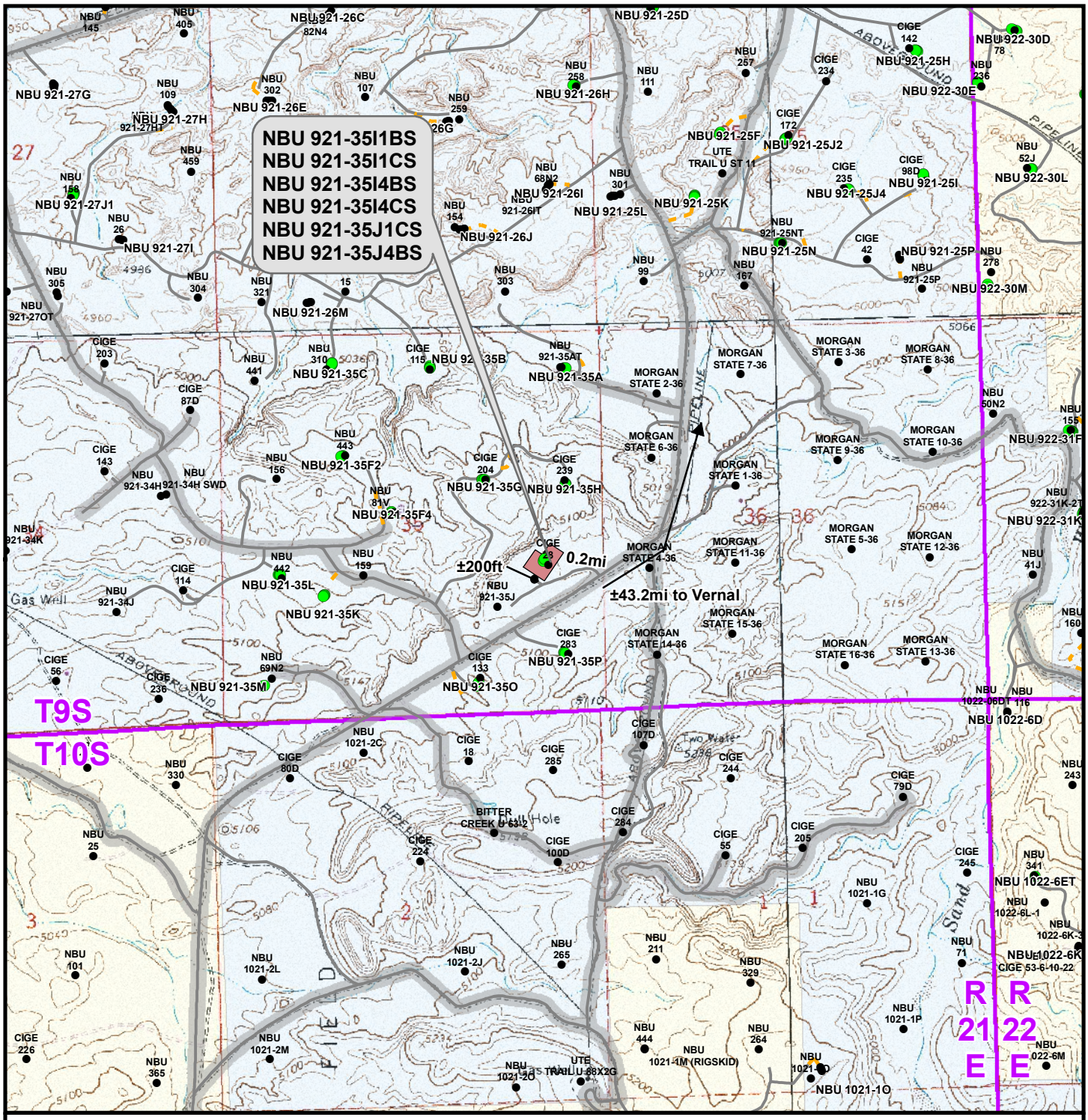
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 12	12 of 18
Drawn: CPS	Date: 19 Oct 2010		
Revised:	Date:		

'APIWellNo:43047513690000'



Legend

Total Proposed Road Length: ±0ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

TOPO B

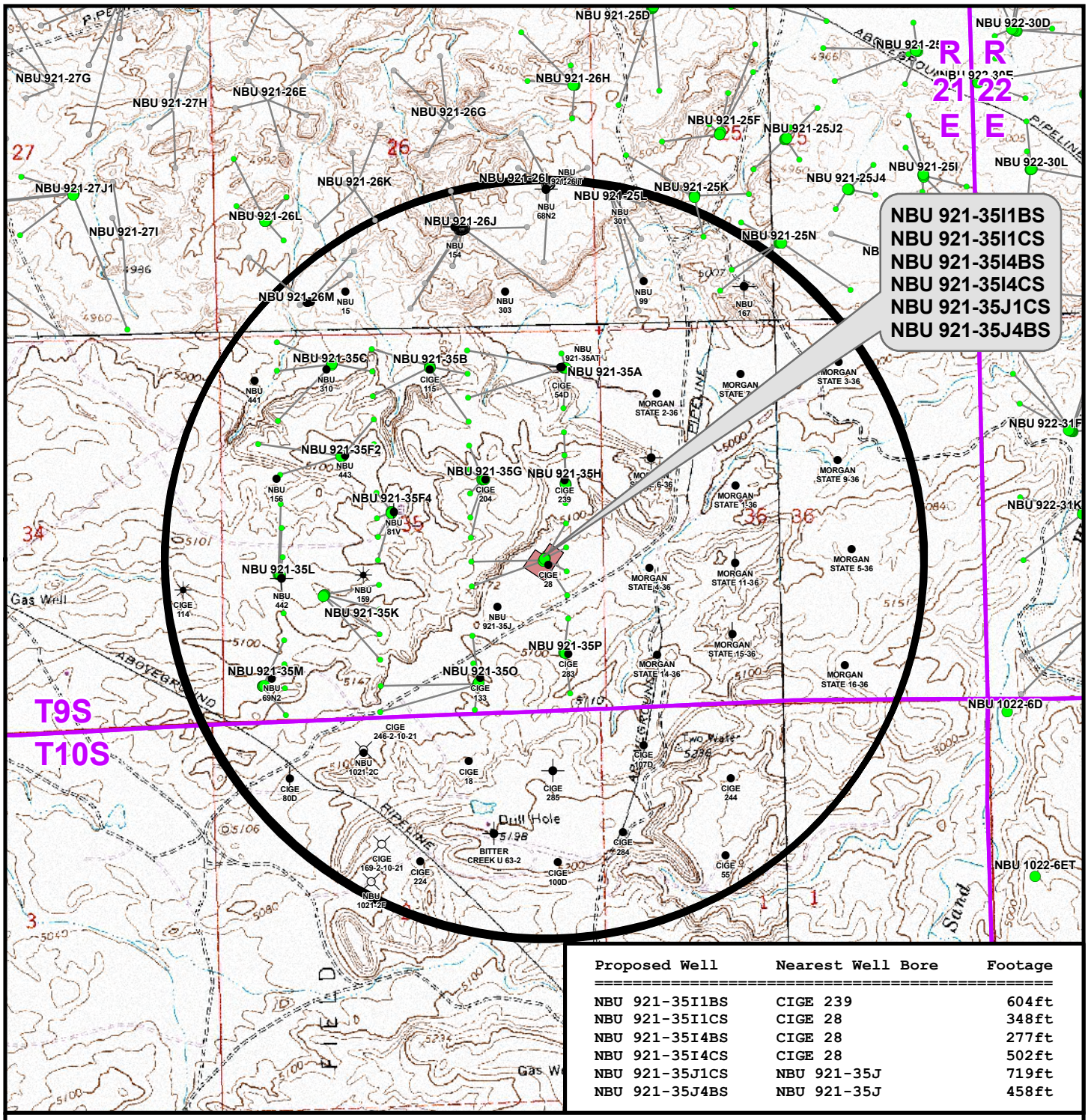
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13	13 of 18
Drawn: CPS	Date: 19 Oct 2010		
Revised:	Date:		

'APIWellNo:43047513690000'



Proposed Well	Nearest Well Bore	Footage
NBU 921-35I1BS	CIGE 239	604ft
NBU 921-35I1CS	CIGE 28	348ft
NBU 921-35I4BS	CIGE 28	277ft
NBU 921-35I4CS	CIGE 28	502ft
NBU 921-35J1CS	NBU 921-35J	719ft
NBU 921-35J4BS	NBU 921-35J	458ft

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Well Path
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Pad
- Well - 1 Mile Radius

- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

TOPO C

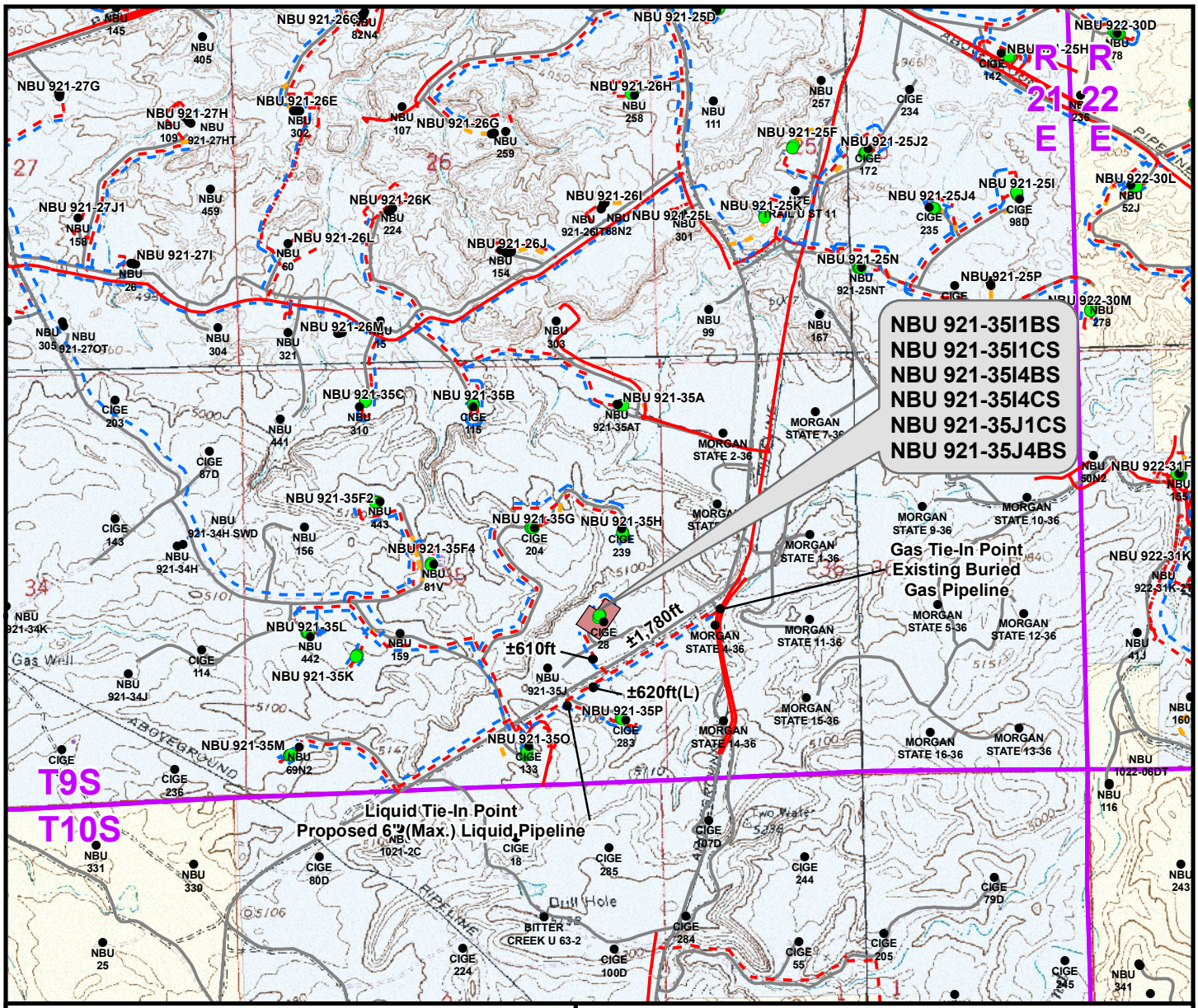
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 14 of 18	
Drawn: CPS	Date: 19 Oct 2010		
Revised:	Date:		

'APIWellNo:43047513690000'



Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±520ft
Proposed 6" (Max.) (Edge of Pad to Road Intersection)	±610ft
Proposed 6" (Max.) (Road Intersection to 35P Intersection)	±620ft
Proposed 6" (Max.) (Road Intersection to Existing Buried Pipeline)	±1,780ft
TOTAL PROPOSED LIQUID PIPELINE =	±3,530ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±520ft
Proposed 8" (Edge of Pad to 35P Intersection)	±610ft
Proposed 12" (35P Intersection to Existing Buried Pipeline)	±1,780ft
TOTAL PROPOSED GAS PIPELINE =	±2,910ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

TOPO D

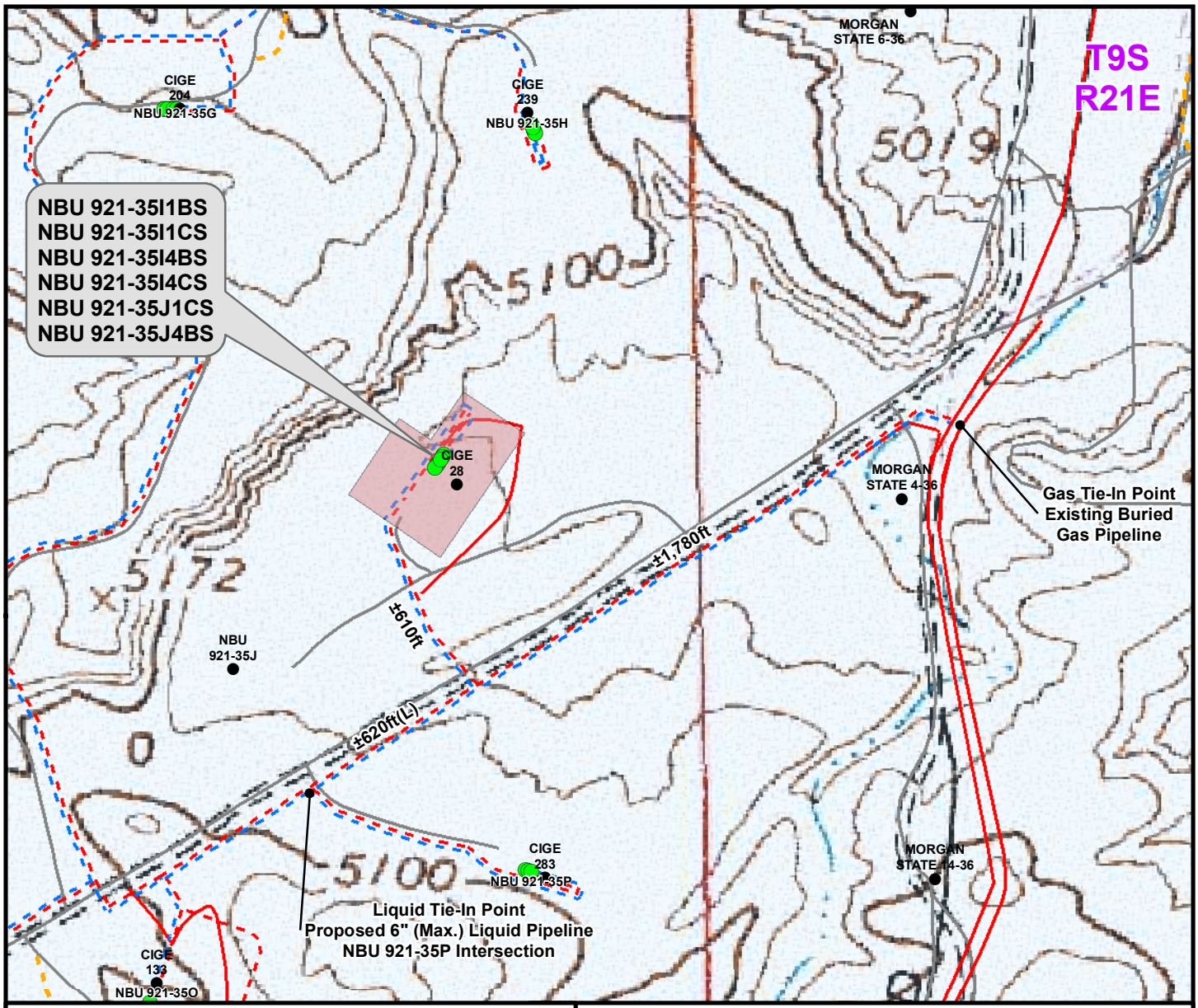
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15 of 18
Drawn: CPS	Date: 19 Oct 2010	
Revised: TL	Date: 1 Nov 2010	

'APIWellNo:43047513690000'



Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±520ft
Proposed 6" (Max.) (Edge of Pad to Road Intersection)	±610ft
Proposed 6" (Max.) (Road Intersection to 35P Intersection)	±620ft
Proposed 6" (Max.) (Road Intersection to Existing Buried Pipeline)	±1,780ft
TOTAL PROPOSED LIQUID PIPELINE =	±3,530ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±520ft
Proposed 8" (Edge of Pad to 35P Intersection)	±610ft
Proposed 12" (35P Intersection to Existing Buried Pipeline)	±1,780ft
TOTAL PROPOSED GAS PIPELINE =	±2,910ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

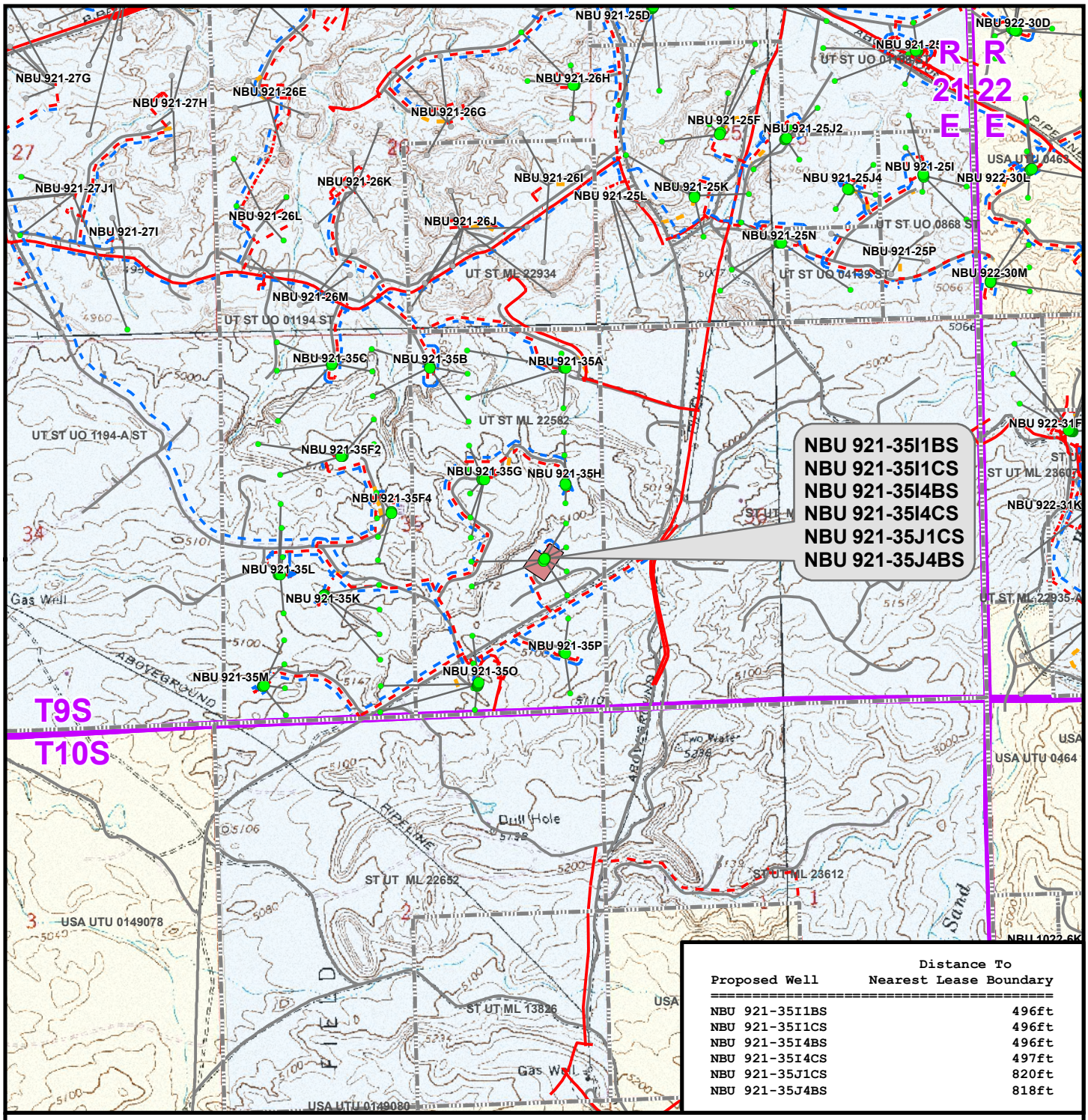
TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-35I1BS, NBU 921-35I1CS,
NBU 921-35I4BS, NBU 921-35I4CS,
NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 500ft	NAD83 USP Central	Sheet No: 16 of 18	
Drawn: CPS	Date: 19 Oct 2010		
Revised: TL	Date: 1 Nov 2010		

'APIWellNo:43047513690000'



Proposed Well	Distance To Nearest Lease Boundary
NBU 921-35I1BS	496ft
NBU 921-35I1CS	496ft
NBU 921-35I4BS	496ft
NBU 921-35I4CS	497ft
NBU 921-35J1CS	820ft
NBU 921-35J4BS	818ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35I

TOPO E

NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS & NBU 921-35J4BS
LOCATED IN SECTION 35, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 17	17 of 18
Drawn: CPS	Date: 19 Oct 2010		
Revised: TL	Date: 1 Nov 2010		

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-35I
WELLS – NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS & NBU 921-35J4BS
Section 35, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 19.7 miles to a service road to the northwest. Exit right and proceed in a northwesterly then southwesterly direction along the service road approximately 0.2 miles to a second service road to the northwest. Exit right and proceed in a northwesterly direction along the second service road approximately 200 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.4 miles in a southerly direction.

'APIWellNo:43047513690000'

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35I PAD
Well: P_NBU 921-35I1BS
Wellbore: P_NBU 921-35I1BS
Design: PLAN #1 11-15-10 RHS

Anadarko Petroleum Corporation

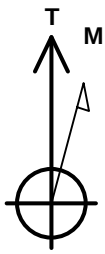
WELL DETAILS: P_NBU 921-35I1BS

GL 5058' & KB 4'
@ 5062.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14526287.63	2057312.72	39° 59' 27.996 N	109° 30' 41.825 W

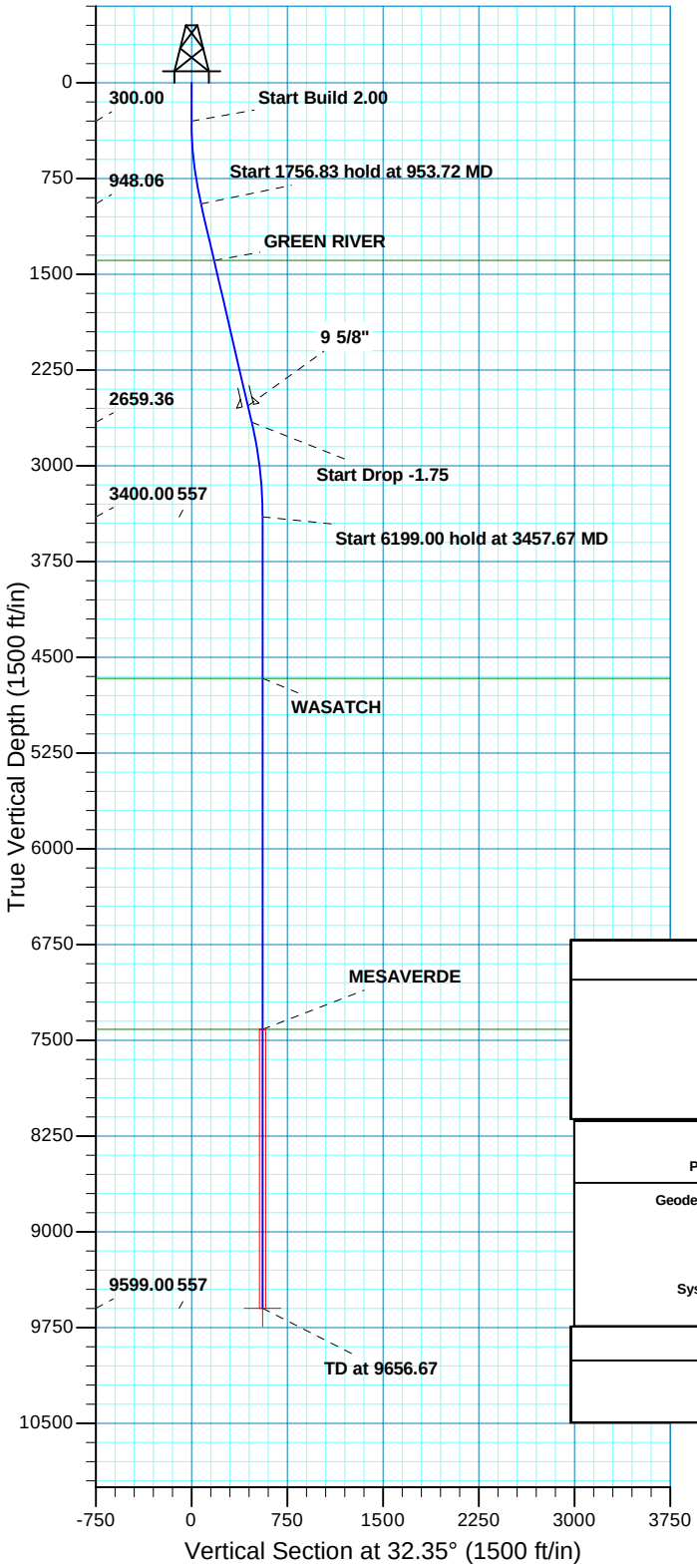
DESIGN TARGET DETAILS

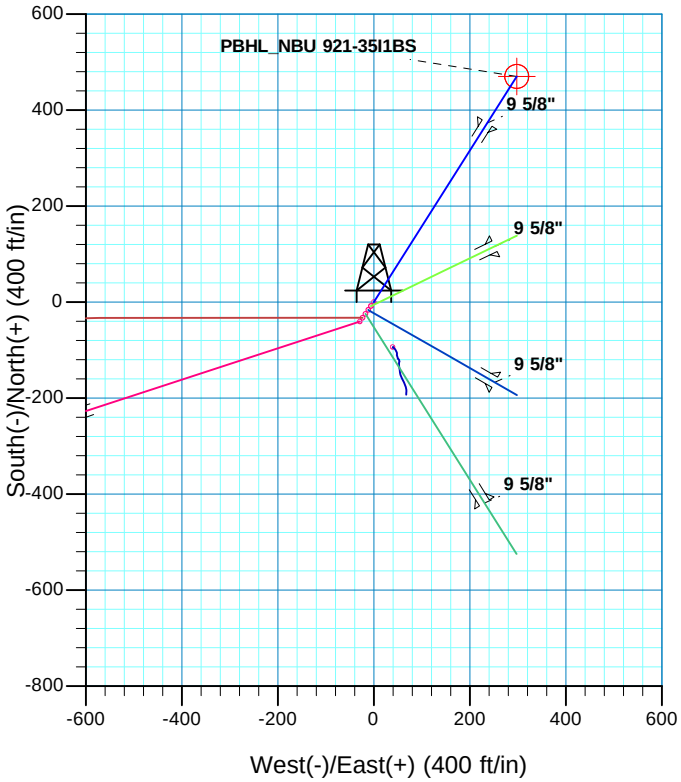
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9599.00	470.19	297.80	14526762.73	2057602.62	39° 59' 32.644 N	109° 30' 37.998 W	Circle (Radius: 25.00)
- plan hits target center								



Azimuths to True North
Magnetic North: 11.15°

Magnetic Field
Strength: 52379.7snT
Dip Angle: 65.87°
Date: 11/15/2010
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
953.72	13.07	32.35	948.06	62.74	39.74	2.00	32.35	74.26	
2710.56	13.07	32.35	2659.36	398.49	252.38	0.00	0.00	471.69	
3457.67	0.00	0.00	3400.00	470.19	297.80	1.75	180.00	556.56	
9656.67	0.00	0.00	9599.00	470.19	297.80	0.00	0.00	556.56	PBHL_NBU 921-35I1BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 35 T9S R21E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1391.00	1408.45	GREEN RIVER
4665.00	4722.67	WASATCH
7414.00	7471.67	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2530.00	2577.76	9 5/8"	9.625

Plan: PLAN #1 11-15-10 RHS (P_NBU 921-35I1BS/P_NBU 921-35I1BS)

Created By: RobertScott Date: 15:58, November 15 2010

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 921-35I PAD
P_NBU 921-35I1BS

P_NBU 921-35I1BS

Plan: PLAN #1 11-15-10 RHS

Standard Planning Report

15 November, 2010

Anadarko
Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 921-35I PAD, SECTION 35 T9S R21E

Site Position:		**Northing:**	14,526,246.73 usft	**Latitude:**	39° 59' 27.596 N
From:	Lat/Long	**Easting:**	2,057,284.25 usft	**Longitude:**	109° 30' 42.199 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.96 °

Well P_NBU 921-35I1BS, 2106' FSL 794' FEL

Well Position	**+N/-S**	40.43 ft	**Northing:**	14,526,287.64 usft	**Latitude:**	39° 59' 27.996 N
	+E/-W	29.14 ft	**Easting:**	2,057,312.71 usft	**Longitude:**	109° 30' 41.825 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,058.00 ft

Wellbore P_NBU 921-35I1BS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/15/2010	11.15	65.87	52,380

Design PLAN #1 11-15-10 RHS

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	32.35

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
953.72	13.07	32.35	948.06	62.74	39.74	2.00	2.00	0.00	32.35	
2,710.56	13.07	32.35	2,659.36	398.49	252.38	0.00	0.00	0.00	0.00	
3,457.67	0.00	0.00	3,400.00	470.19	297.80	1.75	-1.75	0.00	180.00	
9,656.67	0.00	0.00	9,599.00	470.19	297.80	0.00	0.00	0.00	0.00	PBHL_NBU 921-35I1

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	32.35	399.98	1.47	0.93	1.75	2.00	2.00	0.00
500.00	4.00	32.35	499.84	5.90	3.73	6.98	2.00	2.00	0.00
600.00	6.00	32.35	599.45	13.26	8.40	15.69	2.00	2.00	0.00
700.00	8.00	32.35	698.70	23.55	14.92	27.88	2.00	2.00	0.00
800.00	10.00	32.35	797.47	36.77	23.29	43.52	2.00	2.00	0.00
900.00	12.00	32.35	895.62	52.89	33.50	62.60	2.00	2.00	0.00
953.72	13.07	32.35	948.06	62.74	39.74	74.26	2.00	2.00	0.00
Start 1756.83 hold at 953.72 MD									
1,000.00	13.07	32.35	993.14	71.58	45.34	84.73	0.00	0.00	0.00
1,100.00	13.07	32.35	1,090.55	90.69	57.44	107.35	0.00	0.00	0.00
1,200.00	13.07	32.35	1,187.96	109.81	69.55	129.98	0.00	0.00	0.00
1,300.00	13.07	32.35	1,285.36	128.92	81.65	152.60	0.00	0.00	0.00
1,400.00	13.07	32.35	1,382.77	148.03	93.75	175.22	0.00	0.00	0.00
1,408.45	13.07	32.35	1,391.00	149.64	94.78	177.13	0.00	0.00	0.00
GREEN RIVER									
1,500.00	13.07	32.35	1,480.18	167.14	105.86	197.84	0.00	0.00	0.00
1,600.00	13.07	32.35	1,577.59	186.25	117.96	220.46	0.00	0.00	0.00
1,700.00	13.07	32.35	1,675.00	205.36	130.07	243.08	0.00	0.00	0.00
1,800.00	13.07	32.35	1,772.40	224.47	142.17	265.71	0.00	0.00	0.00
1,900.00	13.07	32.35	1,869.81	243.58	154.27	288.33	0.00	0.00	0.00
2,000.00	13.07	32.35	1,967.22	262.69	166.38	310.95	0.00	0.00	0.00
2,100.00	13.07	32.35	2,064.63	281.81	178.48	333.57	0.00	0.00	0.00
2,200.00	13.07	32.35	2,162.03	300.92	190.59	356.19	0.00	0.00	0.00
2,300.00	13.07	32.35	2,259.44	320.03	202.69	378.82	0.00	0.00	0.00
2,400.00	13.07	32.35	2,356.85	339.14	214.79	401.44	0.00	0.00	0.00
2,500.00	13.07	32.35	2,454.26	358.25	226.90	424.06	0.00	0.00	0.00
2,577.76	13.07	32.35	2,530.00	373.11	236.31	441.65	0.00	0.00	0.00
9 5/8"									
2,600.00	13.07	32.35	2,551.66	377.36	239.00	446.68	0.00	0.00	0.00
2,700.00	13.07	32.35	2,649.07	396.47	251.11	469.30	0.00	0.00	0.00
2,710.56	13.07	32.35	2,659.36	398.49	252.38	471.69	0.00	0.00	0.00
Start Drop -1.75									
2,800.00	11.51	32.35	2,746.75	414.58	262.57	490.73	1.75	-1.75	0.00
2,900.00	9.76	32.35	2,845.02	430.17	272.44	509.18	1.75	-1.75	0.00
3,000.00	8.01	32.35	2,943.82	443.21	280.71	524.63	1.75	-1.75	0.00
3,100.00	6.26	32.35	3,043.04	453.70	287.35	537.05	1.75	-1.75	0.00
3,200.00	4.51	32.35	3,142.60	461.63	292.37	546.43	1.75	-1.75	0.00
3,300.00	2.76	32.35	3,242.39	466.99	295.76	552.77	1.75	-1.75	0.00
3,400.00	1.01	32.35	3,342.33	469.76	297.52	556.06	1.75	-1.75	0.00
3,457.67	0.00	0.00	3,400.00	470.19	297.80	556.56	1.75	-1.75	-56.09
Start 6199.00 hold at 3457.67 MD									
3,500.00	0.00	0.00	3,442.33	470.19	297.80	556.56	0.00	0.00	0.00
3,600.00	0.00	0.00	3,542.33	470.19	297.80	556.56	0.00	0.00	0.00
3,700.00	0.00	0.00	3,642.33	470.19	297.80	556.56	0.00	0.00	0.00
3,800.00	0.00	0.00	3,742.33	470.19	297.80	556.56	0.00	0.00	0.00
3,900.00	0.00	0.00	3,842.33	470.19	297.80	556.56	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	0.00	0.00	3,942.33	470.19	297.80	556.56	0.00	0.00	0.00
4,100.00	0.00	0.00	4,042.33	470.19	297.80	556.56	0.00	0.00	0.00
4,200.00	0.00	0.00	4,142.33	470.19	297.80	556.56	0.00	0.00	0.00
4,300.00	0.00	0.00	4,242.33	470.19	297.80	556.56	0.00	0.00	0.00
4,400.00	0.00	0.00	4,342.33	470.19	297.80	556.56	0.00	0.00	0.00
4,500.00	0.00	0.00	4,442.33	470.19	297.80	556.56	0.00	0.00	0.00
4,600.00	0.00	0.00	4,542.33	470.19	297.80	556.56	0.00	0.00	0.00
4,700.00	0.00	0.00	4,642.33	470.19	297.80	556.56	0.00	0.00	0.00
4,722.67	0.00	0.00	4,665.00	470.19	297.80	556.56	0.00	0.00	0.00
WASATCH									
4,800.00	0.00	0.00	4,742.33	470.19	297.80	556.56	0.00	0.00	0.00
4,900.00	0.00	0.00	4,842.33	470.19	297.80	556.56	0.00	0.00	0.00
5,000.00	0.00	0.00	4,942.33	470.19	297.80	556.56	0.00	0.00	0.00
5,100.00	0.00	0.00	5,042.33	470.19	297.80	556.56	0.00	0.00	0.00
5,200.00	0.00	0.00	5,142.33	470.19	297.80	556.56	0.00	0.00	0.00
5,300.00	0.00	0.00	5,242.33	470.19	297.80	556.56	0.00	0.00	0.00
5,400.00	0.00	0.00	5,342.33	470.19	297.80	556.56	0.00	0.00	0.00
5,500.00	0.00	0.00	5,442.33	470.19	297.80	556.56	0.00	0.00	0.00
5,600.00	0.00	0.00	5,542.33	470.19	297.80	556.56	0.00	0.00	0.00
5,700.00	0.00	0.00	5,642.33	470.19	297.80	556.56	0.00	0.00	0.00
5,800.00	0.00	0.00	5,742.33	470.19	297.80	556.56	0.00	0.00	0.00
5,900.00	0.00	0.00	5,842.33	470.19	297.80	556.56	0.00	0.00	0.00
6,000.00	0.00	0.00	5,942.33	470.19	297.80	556.56	0.00	0.00	0.00
6,100.00	0.00	0.00	6,042.33	470.19	297.80	556.56	0.00	0.00	0.00
6,200.00	0.00	0.00	6,142.33	470.19	297.80	556.56	0.00	0.00	0.00
6,300.00	0.00	0.00	6,242.33	470.19	297.80	556.56	0.00	0.00	0.00
6,400.00	0.00	0.00	6,342.33	470.19	297.80	556.56	0.00	0.00	0.00
6,500.00	0.00	0.00	6,442.33	470.19	297.80	556.56	0.00	0.00	0.00
6,600.00	0.00	0.00	6,542.33	470.19	297.80	556.56	0.00	0.00	0.00
6,700.00	0.00	0.00	6,642.33	470.19	297.80	556.56	0.00	0.00	0.00
6,800.00	0.00	0.00	6,742.33	470.19	297.80	556.56	0.00	0.00	0.00
6,900.00	0.00	0.00	6,842.33	470.19	297.80	556.56	0.00	0.00	0.00
7,000.00	0.00	0.00	6,942.33	470.19	297.80	556.56	0.00	0.00	0.00
7,100.00	0.00	0.00	7,042.33	470.19	297.80	556.56	0.00	0.00	0.00
7,200.00	0.00	0.00	7,142.33	470.19	297.80	556.56	0.00	0.00	0.00
7,300.00	0.00	0.00	7,242.33	470.19	297.80	556.56	0.00	0.00	0.00
7,400.00	0.00	0.00	7,342.33	470.19	297.80	556.56	0.00	0.00	0.00
7,471.67	0.00	0.00	7,414.00	470.19	297.80	556.56	0.00	0.00	0.00
MESAVERDE									
7,500.00	0.00	0.00	7,442.33	470.19	297.80	556.56	0.00	0.00	0.00
7,600.00	0.00	0.00	7,542.33	470.19	297.80	556.56	0.00	0.00	0.00
7,700.00	0.00	0.00	7,642.33	470.19	297.80	556.56	0.00	0.00	0.00
7,800.00	0.00	0.00	7,742.33	470.19	297.80	556.56	0.00	0.00	0.00
7,900.00	0.00	0.00	7,842.33	470.19	297.80	556.56	0.00	0.00	0.00
8,000.00	0.00	0.00	7,942.33	470.19	297.80	556.56	0.00	0.00	0.00
8,100.00	0.00	0.00	8,042.33	470.19	297.80	556.56	0.00	0.00	0.00
8,200.00	0.00	0.00	8,142.33	470.19	297.80	556.56	0.00	0.00	0.00
8,300.00	0.00	0.00	8,242.33	470.19	297.80	556.56	0.00	0.00	0.00
8,400.00	0.00	0.00	8,342.33	470.19	297.80	556.56	0.00	0.00	0.00
8,500.00	0.00	0.00	8,442.33	470.19	297.80	556.56	0.00	0.00	0.00
8,600.00	0.00	0.00	8,542.33	470.19	297.80	556.56	0.00	0.00	0.00
8,700.00	0.00	0.00	8,642.33	470.19	297.80	556.56	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,742.33	470.19	297.80	556.56	0.00	0.00	0.00
8,900.00	0.00	0.00	8,842.33	470.19	297.80	556.56	0.00	0.00	0.00
9,000.00	0.00	0.00	8,942.33	470.19	297.80	556.56	0.00	0.00	0.00
9,100.00	0.00	0.00	9,042.33	470.19	297.80	556.56	0.00	0.00	0.00
9,200.00	0.00	0.00	9,142.33	470.19	297.80	556.56	0.00	0.00	0.00
9,300.00	0.00	0.00	9,242.33	470.19	297.80	556.56	0.00	0.00	0.00
9,400.00	0.00	0.00	9,342.33	470.19	297.80	556.56	0.00	0.00	0.00
9,500.00	0.00	0.00	9,442.33	470.19	297.80	556.56	0.00	0.00	0.00
9,600.00	0.00	0.00	9,542.33	470.19	297.80	556.56	0.00	0.00	0.00
9,656.67	0.00	0.00	9,599.00	470.19	297.80	556.56	0.00	0.00	0.00
PBHL_NBU 921-35I1BS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 921-35I1BS - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,599.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,577.76	2,530.00	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,408.45	1,391.00	GREEN RIVER			
4,722.67	4,665.00	WASATCH			
7,471.67	7,414.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
953.72	948.06	62.74	39.74	Start 1756.83 hold at 953.72 MD
2,710.56	2,659.36	398.49	252.38	Start Drop -1.75
3,457.67	3,400.00	470.19	297.80	Start 6199.00 hold at 3457.67 MD
9,656.67	9,599.00	470.19	297.80	TD at 9656.67

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 921-35I PAD
P_NBU 921-35I1BS

P_NBU 921-35I1BS

Plan: PLAN #1 11-15-10 RHS

Standard Planning Report - Geographic

15 November, 2010

Anadarko
Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 921-35I PAD, SECTION 35 T9S R21E

Site Position:		**Northing:**	14,526,246.73 usft	**Latitude:**	39° 59' 27.596 N
From:	Lat/Long	**Easting:**	2,057,284.25 usft	**Longitude:**	109° 30' 42.199 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.96 °

Well P_NBU 921-35I1BS, 2106' FSL 794' FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,526,287.64 usft	**Latitude:**	39° 59' 27.996 N
	+E/-W	0.00 ft	**Easting:**	2,057,312.71 usft	**Longitude:**	109° 30' 41.825 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,058.00 ft

Wellbore P_NBU 921-35I1BS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/15/2010	11.15	65.87	52,380

Design PLAN #1 11-15-10 RHS

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	32.35

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
953.72	13.07	32.35	948.06	62.74	39.74	2.00	2.00	0.00	32.35	
2,710.56	13.07	32.35	2,659.36	398.49	252.38	0.00	0.00	0.00	0.00	
3,457.67	0.00	0.00	3,400.00	470.19	297.80	1.75	-1.75	0.00	180.00	
9,656.67	0.00	0.00	9,599.00	470.19	297.80	0.00	0.00	0.00	0.00	PBHL_NBU 921-35I1

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,287.64	2,057,312.71	39° 59' 27.996 N	109° 30' 41.825 W
100.00	0.00	0.00	100.00	0.00	0.00	14,526,287.64	2,057,312.71	39° 59' 27.996 N	109° 30' 41.825 W
200.00	0.00	0.00	200.00	0.00	0.00	14,526,287.64	2,057,312.71	39° 59' 27.996 N	109° 30' 41.825 W
300.00	0.00	0.00	300.00	0.00	0.00	14,526,287.64	2,057,312.71	39° 59' 27.996 N	109° 30' 41.825 W
Start Build 2.00									
400.00	2.00	32.35	399.98	1.47	0.93	14,526,289.13	2,057,313.62	39° 59' 28.011 N	109° 30' 41.813 W
500.00	4.00	32.35	499.84	5.90	3.73	14,526,293.60	2,057,316.35	39° 59' 28.054 N	109° 30' 41.777 W
600.00	6.00	32.35	599.45	13.26	8.40	14,526,301.04	2,057,320.89	39° 59' 28.127 N	109° 30' 41.717 W
700.00	8.00	32.35	698.70	23.55	14.92	14,526,311.44	2,057,327.23	39° 59' 28.229 N	109° 30' 41.633 W
800.00	10.00	32.35	797.47	36.77	23.29	14,526,324.79	2,057,335.38	39° 59' 28.359 N	109° 30' 41.526 W
900.00	12.00	32.35	895.62	52.89	33.50	14,526,341.08	2,057,345.32	39° 59' 28.519 N	109° 30' 41.394 W
953.72	13.07	32.35	948.06	62.74	39.74	14,526,351.03	2,057,351.39	39° 59' 28.616 N	109° 30' 41.314 W
Start 1756.83 hold at 953.72 MD									
1,000.00	13.07	32.35	993.14	71.58	45.34	14,526,359.97	2,057,356.85	39° 59' 28.704 N	109° 30' 41.242 W
1,100.00	13.07	32.35	1,090.55	90.69	57.44	14,526,379.28	2,057,368.63	39° 59' 28.892 N	109° 30' 41.087 W
1,200.00	13.07	32.35	1,187.96	109.81	69.55	14,526,398.59	2,057,380.41	39° 59' 29.081 N	109° 30' 40.931 W
1,300.00	13.07	32.35	1,285.36	128.92	81.65	14,526,417.90	2,057,392.20	39° 59' 29.270 N	109° 30' 40.776 W
1,400.00	13.07	32.35	1,382.77	148.03	93.75	14,526,437.21	2,057,403.98	39° 59' 29.459 N	109° 30' 40.620 W
1,408.45	13.07	32.35	1,391.00	149.64	94.78	14,526,438.84	2,057,404.98	39° 59' 29.475 N	109° 30' 40.607 W
GREEN RIVER									
1,500.00	13.07	32.35	1,480.18	167.14	105.86	14,526,456.52	2,057,415.76	39° 59' 29.648 N	109° 30' 40.465 W
1,600.00	13.07	32.35	1,577.59	186.25	117.96	14,526,475.83	2,057,427.55	39° 59' 29.837 N	109° 30' 40.309 W
1,700.00	13.07	32.35	1,675.00	205.36	130.07	14,526,495.14	2,057,439.33	39° 59' 30.026 N	109° 30' 40.153 W
1,800.00	13.07	32.35	1,772.40	224.47	142.17	14,526,514.45	2,057,451.11	39° 59' 30.215 N	109° 30' 39.998 W
1,900.00	13.07	32.35	1,869.81	243.58	154.27	14,526,533.76	2,057,462.90	39° 59' 30.404 N	109° 30' 39.842 W
2,000.00	13.07	32.35	1,967.22	262.69	166.38	14,526,553.07	2,057,474.68	39° 59' 30.593 N	109° 30' 39.687 W
2,100.00	13.07	32.35	2,064.63	281.81	178.48	14,526,572.39	2,057,486.46	39° 59' 30.782 N	109° 30' 39.531 W
2,200.00	13.07	32.35	2,162.03	300.92	190.59	14,526,591.70	2,057,498.25	39° 59' 30.970 N	109° 30' 39.376 W
2,300.00	13.07	32.35	2,259.44	320.03	202.69	14,526,611.01	2,057,510.03	39° 59' 31.159 N	109° 30' 39.220 W
2,400.00	13.07	32.35	2,356.85	339.14	214.79	14,526,630.32	2,057,521.81	39° 59' 31.348 N	109° 30' 39.065 W
2,500.00	13.07	32.35	2,454.26	358.25	226.90	14,526,649.63	2,057,533.59	39° 59' 31.537 N	109° 30' 38.909 W
2,577.76	13.07	32.35	2,530.00	373.11	236.31	14,526,664.64	2,057,542.76	39° 59' 31.684 N	109° 30' 38.788 W
9 5/8"									
2,600.00	13.07	32.35	2,551.66	377.36	239.00	14,526,668.94	2,057,545.38	39° 59' 31.726 N	109° 30' 38.754 W
2,700.00	13.07	32.35	2,649.07	396.47	251.11	14,526,688.25	2,057,557.16	39° 59' 31.915 N	109° 30' 38.598 W
2,710.56	13.07	32.35	2,659.36	398.49	252.38	14,526,690.29	2,057,558.40	39° 59' 31.935 N	109° 30' 38.582 W
Start Drop -1.75									
2,800.00	11.51	32.35	2,746.75	414.58	262.57	14,526,706.54	2,057,568.32	39° 59' 32.094 N	109° 30' 38.451 W
2,900.00	9.76	32.35	2,845.02	430.17	272.44	14,526,722.29	2,057,577.93	39° 59' 32.248 N	109° 30' 38.324 W
3,000.00	8.01	32.35	2,943.82	443.21	280.71	14,526,735.48	2,057,585.98	39° 59' 32.377 N	109° 30' 38.218 W
3,100.00	6.26	32.35	3,043.04	453.70	287.35	14,526,746.08	2,057,592.45	39° 59' 32.481 N	109° 30' 38.132 W
3,200.00	4.51	32.35	3,142.60	461.63	292.37	14,526,754.09	2,057,597.34	39° 59' 32.559 N	109° 30' 38.068 W
3,300.00	2.76	32.35	3,242.39	466.99	295.76	14,526,759.50	2,057,600.64	39° 59' 32.612 N	109° 30' 38.024 W
3,400.00	1.01	32.35	3,342.33	469.76	297.52	14,526,762.30	2,057,602.35	39° 59' 32.639 N	109° 30' 38.001 W
3,457.67	0.00	0.00	3,400.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
Start 6199.00 hold at 3457.67 MD									
3,500.00	0.00	0.00	3,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
3,600.00	0.00	0.00	3,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
3,700.00	0.00	0.00	3,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
3,800.00	0.00	0.00	3,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
3,900.00	0.00	0.00	3,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,000.00	0.00	0.00	3,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,100.00	0.00	0.00	4,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,200.00	0.00	0.00	4,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,300.00	0.00	0.00	4,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,400.00	0.00	0.00	4,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,500.00	0.00	0.00	4,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,600.00	0.00	0.00	4,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,700.00	0.00	0.00	4,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,722.67	0.00	0.00	4,665.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
WASATCH									
4,800.00	0.00	0.00	4,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
4,900.00	0.00	0.00	4,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,000.00	0.00	0.00	4,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,100.00	0.00	0.00	5,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,200.00	0.00	0.00	5,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,300.00	0.00	0.00	5,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,400.00	0.00	0.00	5,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,500.00	0.00	0.00	5,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,600.00	0.00	0.00	5,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,700.00	0.00	0.00	5,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,800.00	0.00	0.00	5,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
5,900.00	0.00	0.00	5,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,000.00	0.00	0.00	5,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,100.00	0.00	0.00	6,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,200.00	0.00	0.00	6,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,300.00	0.00	0.00	6,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,400.00	0.00	0.00	6,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,500.00	0.00	0.00	6,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,600.00	0.00	0.00	6,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,700.00	0.00	0.00	6,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,800.00	0.00	0.00	6,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
6,900.00	0.00	0.00	6,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,000.00	0.00	0.00	6,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,100.00	0.00	0.00	7,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,200.00	0.00	0.00	7,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,300.00	0.00	0.00	7,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,400.00	0.00	0.00	7,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,471.67	0.00	0.00	7,414.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
MESAVERDE									
7,500.00	0.00	0.00	7,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,600.00	0.00	0.00	7,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,700.00	0.00	0.00	7,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,800.00	0.00	0.00	7,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
7,900.00	0.00	0.00	7,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,000.00	0.00	0.00	7,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,100.00	0.00	0.00	8,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,200.00	0.00	0.00	8,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,300.00	0.00	0.00	8,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,400.00	0.00	0.00	8,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,500.00	0.00	0.00	8,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,600.00	0.00	0.00	8,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,700.00	0.00	0.00	8,642.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
8,800.00	0.00	0.00	8,742.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well P_NBU 921-35I1BS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5058' & KB 4' @ 5062.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35I PAD	**North Reference:**	True
Well:	P_NBU 921-35I1BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-35I1BS		
Design:	PLAN #1 11-15-10 RHS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,900.00	0.00	0.00	8,842.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,000.00	0.00	0.00	8,942.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,100.00	0.00	0.00	9,042.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,200.00	0.00	0.00	9,142.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,300.00	0.00	0.00	9,242.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,400.00	0.00	0.00	9,342.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,500.00	0.00	0.00	9,442.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,600.00	0.00	0.00	9,542.33	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
9,656.67	0.00	0.00	9,599.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W
PBHL_NBU 921-35I1BS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 921-35I1BS - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,599.00	470.19	297.80	14,526,762.74	2,057,602.61	39° 59' 32.644 N	109° 30' 37.998 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,577.76	2,530.00	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,408.45	1,391.00	GREEN RIVER			
4,722.67	4,665.00	WASATCH			
7,471.67	7,414.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
953.72	948.06	62.74	39.74	Start 1756.83 hold at 953.72 MD
2,710.56	2,659.36	398.49	252.38	Start Drop -1.75
3,457.67	3,400.00	470.19	297.80	Start 6199.00 hold at 3457.67 MD
9,656.67	9,599.00	470.19	297.80	TD at 9656.67

'APIWellNo:43047513690000'

NBU 921-35I1BS
Surface: 2,106’ FSL 794’ FEL (NE/4SE/4)
BHL: 2,572’ FSL 496’ FEL (NE/4SE/4)

NBU 921-35I1CS
Surface: 2,098’ FSL 800’ FEL (NE/4SE/4)
BHL: 2,240’ FSL 496’ FEL (NE/4SE/4)

NBU 921-35I4BS
Surface: 2,090’ FSL 806’ FEL (NE/4SE/4)
BHL: 1,908’ FSL 496’ FEL (NE/4SE/4)

NBU 921-35I4CS
Surface: 2,082’ FSL 811’ FEL (NE/4SE/4)
BHL: 1,577’ FSL 497’ FEL (NE/4SE/4)

NBU 921-35J1CS
Surface: 2,074’ FSL 817’ FEL (NE/4SE/4)
BHL: 2,086’ FSL 1,825’ FEL (NW/4SE/4)

NBU 921-35J4BS
Surface: 2,066’ FSL 823’ FEL (NE/4SE/4)
BHL: 1,752’ FSL 1,826’ FEL (NW/4SE/4)

Pad: NBU 921-35I
Section 35 T9S R21E
Mineral Lease: ML 22582

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the CIGE 28. This well location is a producing vertical well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of November 11, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.

Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±2,910' and the individual segments are broken up as follows:

±520' (0.1 miles) –New 8" buried gas pipeline from the meter to the edge of the pad.
±610' (0.1 miles) –New 8" buried gas pipeline from the edge of pad to the NBU 921-35P pad intersection.
±1,780' (0.3 miles) –New 12" buried gas pipeline from the NBU 921-35P pad intersection to the existing buried pipeline.

The total liquid gathering pipeline distance from the separator to the tie in point is ±3,530' and the individual segments are broken up as follows:

±520' (0.1 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad.
±610' (0.1 miles) –New 6" buried liquid pipeline from the edge of pad to the road intersection.
±620' (0.1 miles) –New 6" buried liquid pipeline from the road intersection to the NBU 921-35P pad intersection.
±1,780' (0.3 miles) –New 6" buried liquid pipeline from the road intersection to the existing buried pipeline.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.
Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.
No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:

A Class I literature survey was conducted by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-141.

A paleontological reconnaissance was conducted by Intermountain Paleo-Consulting (IPC). For additional details please refer to report IPC 10-20.

A biological field survey was completed by Grasslands Consulting, Inc. on July 13, 2010 and August 10, 2010. For additional details please refer to report GCI-306.

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

Danielle Piernot

November 18, 2010
Date

'APIWellNo:43047513690000'

Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

October 27, 2010

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-35I1BS
T9S-R21E
Section 35: NESE (Surf), NESE (Bottom)
Surface: 2106' FSL, 794' FEL
Bottom Hole: 2572' FSL, 496' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-35I1BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

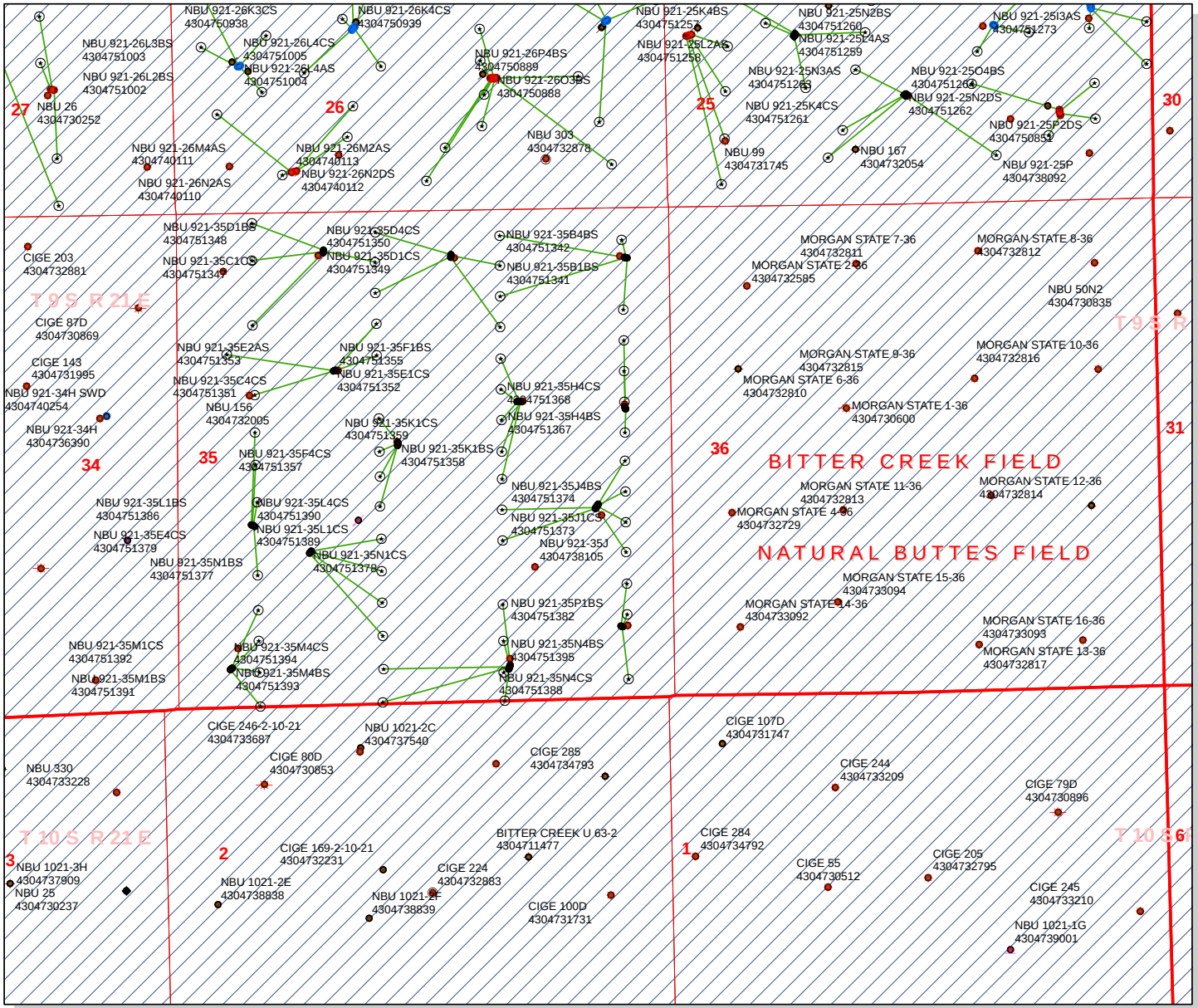
Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Joe Matney
Sr. Staff Landman

'APIWellNo:43047513690000'



API Number: 4304751369

Well Name: NBU 921-35I1BS

Township 09.0 S Range 21.0 E Section 35

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED
Fields
Sections
Township
Bottom Hole Location - AGRC

Wells Query
<all other values>
Status
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LA - Location Abandoned
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
PGW - Producing Gas Well
POW - Producing Oil Well
RET - Returned APD
SGW - Shut-in Gas Well
SOW - Shut-in Oil Well
TA - Temp. Abandoned
TW - Test Well
WDW - Water Disposal
WIW - Water Injection Well
WSW - Water Supply Well

1,400 700 0 1,400 Feet

1:13,286

'APIWellNo:43047513690000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

December 1, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
NBU 921-35F2 Pad		
43-047-51355	NBU 921-35F1BS	Sec 35 T09S R21E 1684 FNL 1709 FWL BHL Sec 35 T09S R21E 1531 FNL 2146 FWL
NBU 921-35F4 PAD		
43-047-51356	NBU 921-35F4BS	Sec 35 T09S R21E 2473 FNL 2358 FWL BHL Sec 35 T09S R21E 2210 FNL 2158 FWL
43-047-51357	NBU 921-35F4CS	Sec 35 T09S R21E 2483 FNL 2358 FWL BHL Sec 35 T09S R21E 2567 FNL 2159 FWL
43-047-51358	NBU 921-35K1BS	Sec 35 T09S R21E 2493 FNL 2358 FWL BHL Sec 35 T09S R21E 2484 FSL 2161 FWL
43-047-51359	NBU 921-35K1CS	Sec 35 T09S R21E 2503 FNL 2357 FWL BHL Sec 35 T09S R21E 2163 FSL 2155 FWL
NBU 921-35G Pad		
43-047-51360	NBU 921-35G1BS	Sec 35 T09S R21E 2053 FNL 1633 FEL BHL Sec 35 T09S R21E 1583 FNL 1819 FEL
43-047-51361	NBU 921-35G1CS	Sec 35 T09S R21E 2053 FNL 1653 FEL BHL Sec 35 T09S R21E 1916 FNL 1820 FEL
43-047-51362	NBU 921-35G4BS	Sec 35 T09S R21E 2053 FNL 1643 FEL BHL Sec 35 T09S R21E 2250 FNL 1822 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51363	NBU 921-35G4CS	Sec 35 T09S R21E 2053 FNL 1623 FEL
		BHL Sec 35 T09S R21E 2583 FNL 1823 FEL
43-047-51364	NBU 921-35J1BS	Sec 35 T09S R21E 2053 FNL 1613 FEL
		BHL Sec 35 T09S R21E 2419 FSL 1824 FEL
NBU 921-35H PAD		
43-047-51365	NBU 921-35H1BS	Sec 35 T09S R21E 2143 FNL 0486 FEL
		BHL Sec 35 T09S R21E 1411 FNL 0494 FEL
43-047-51366	NBU 921-35H1CS	Sec 35 T09S R21E 2133 FNL 0490 FEL
		BHL Sec 35 T09S R21E 1743 FNL 0495 FEL
43-047-51367	NBU 921-35H4BS	Sec 35 T09S R21E 2124 FNL 0493 FEL
		BHL Sec 35 T09S R21E 2075 FNL 0495 FEL
43-047-51368	NBU 921-35H4CS	Sec 35 T09S R21E 2152 FNL 0483 FEL
		BHL Sec 35 T09S R21E 2407 FNL 0495 FEL
NBU 921-35I PAD		
43-047-51369	NBU 921-35I1BS	Sec 35 T09S R21E 2106 FSL 0794 FEL
		BHL Sec 35 T09S R21E 2572 FSL 0496 FEL
43-047-51370	NBU 921-35I1CS	Sec 35 T09S R21E 2098 FSL 0800 FEL
		BHL Sec 35 T09S R21E 2240 FSL 0496 FEL
43-047-51371	NBU 921-35I4BS	Sec 35 T09S R21E 2090 FSL 0806 FEL
		BHL Sec 35 T09S R21E 1908 FSL 0496 FEL
43-047-51372	NBU 921-35I4CS	Sec 35 T09S R21E 2082 FSL 0811 FEL
		BHL Sec 35 T09S R21E 1577 FSL 0497 FEL
43-047-51373	NBU 921-35J1CS	Sec 35 T09S R21E 2074 FSL 0817 FEL
		BHL Sec 35 T09S R21E 2086 FSL 1825 FEL
43-047-51374	NBU 921-35J4BS	Sec 35 T09S R21E 2066 FSL 0823 FEL
		BHL Sec 35 T09S R21E 1752 FSL 1826 FEL
NBU 921-35K PAD		
43-047-51375	NBU 921-35K4BS	Sec 35 T09S R21E 1710 FSL 1409 FWL
		BHL Sec 35 T09S R21E 1814 FSL 2165 FWL
43-047-51376	NBU 921-35K4CS	Sec 35 T09S R21E 1702 FSL 1403 FWL
		BHL Sec 35 T09S R21E 1469 FSL 2163 FWL
43-047-51377	NBU 921-35N1BS	Sec 35 T09S R21E 1694 FSL 1397 FWL
		BHL Sec 35 T09S R21E 1124 FSL 2161 FWL
43-047-51378	NBU 921-35N1CS	Sec 35 T09S R21E 1686 FSL 1392 FWL
		BHL Sec 35 T09S R21E 0771 FSL 2162 FWL

'APIWellNo:43047513690000'

API #	WELL NAME	LOCATION
NBU 921-35L PAD		
43-047-51379	NBU 921-35E4CS	Sec 35 T09S R21E 2016 FSL 0768 FWL
		BHL Sec 35 T09S R21E 2343 FNL 0823 FWL
43-047-51386	NBU 921-35L1BS	Sec 35 T09S R21E 2013 FSL 0778 FWL
		BHL Sec 35 T09S R21E 2658 FSL 0826 FWL
43-047-51389	NBU 921-35L1CS	Sec 35 T09S R21E 2009 FSL 0787 FWL
		BHL Sec 35 T09S R21E 2255 FSL 0835 FWL
43-047-51390	NBU 921-35L4CS	Sec 35 T09S R21E 2005 FSL 0796 FWL
		BHL Sec 35 T09S R21E 1470 FSL 0832 FWL
NBU 921-35P PAD		
43-047-51380	NBU 921-35P4CS	Sec 35 T09S R21E 0781 FSL 0557 FEL
		BHL Sec 35 T09S R21E 0208 FSL 0489 FEL
43-047-51381	NBU 921-35P1CS	Sec 35 T09S R21E 0778 FSL 0547 FEL
		BHL Sec 35 T09S R21E 0913 FSL 0497 FEL
43-047-51382	NBU 921-35P1BS	Sec 35 T09S R21E 0785 FSL 0566 FEL
		BHL Sec 35 T09S R21E 1245 FSL 0497 FEL
NBU 921-35O PAD		
43-047-51383	NBU 921-35O4CS	Sec 35 T09S R21E 0360 FSL 1780 FEL
		BHL Sec 35 T09S R21E 0026 FSL 1826 FEL
43-047-51384	NBU 921-35O4BS	Sec 35 T09S R21E 0370 FSL 1777 FEL
		BHL Sec 35 T09S R21E 0336 FSL 1833 FEL
43-047-51385	NBU 921-35O1CS	Sec 35 T09S R21E 0398 FSL 1766 FEL
		BHL Sec 35 T09S R21E 0674 FSL 1828 FEL
43-047-51387	NBU 921-35O1BS	Sec 35 T09S R21E 0407 FSL 1763 FEL
		BHL Sec 35 T09S R21E 1059 FSL 1833 FEL
43-047-51388	NBU 921-35N4CS	Sec 35 T09S R21E 0379 FSL 1773 FEL
		BHL Sec 35 T09S R21E 0051 FSL 2153 FWL
43-047-51395	NBU 921-35N4BS	Sec 35 T09S R21E 0388 FSL 1770 FEL
		BHL Sec 35 T09S R21E 0410 FSL 2164 FWL
NBU 921-35M PAD		
43-047-51391	NBU 921-35M1BS	Sec 35 T09S R21E 0469 FSL 0526 FWL
		BHL Sec 35 T09S R21E 1096 FSL 0830 FWL
43-047-51392	NBU 921-35M1CS	Sec 35 T09S R21E 0474 FSL 0534 FWL
		BHL Sec 35 T09S R21E 0760 FSL 0830 FWL

'APIWellNo:43047513690000'

API #	WELL NAME	LOCATION
43-047-51393	NBU 921-35M4BS	Sec 35 T09S R21E 0478 FSL 0543 FWL
		BHL Sec 35 T09S R21E 0423 FSL 0831 FWL
43-047-51394	NBU 921-35M4CS	Sec 35 T09S R21E 0464 FSL 0517 FWL
		BHL Sec 35 T09S R21E 0055 FSL 0834 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2010.12.01 10:03:00 -07'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:12-1-10

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-35I1BS 43047513690000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-35I1BS 4304751369			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2483	9599		
Previous Shoe Setting Depth (TVD)	40	2483		
Max Mud Weight (ppg)	8.3	12.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5855	11.7		

Calculations	Surf String	8.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	1076		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	778	NO	air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	530	NO	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	539	NO	Reasonable depth in area
Required Casing/BOPE Test Pressure=		2373	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient	

Calculations	Prod String	4.500	"	
Max BHP (psi)	.052*Setting Depth*MW=	5990		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4838	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3878	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4424	NO	Reasonable
Required Casing/BOPE Test Pressure=		5000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2483	psi *Assumes 1psi/ft frac gradient	

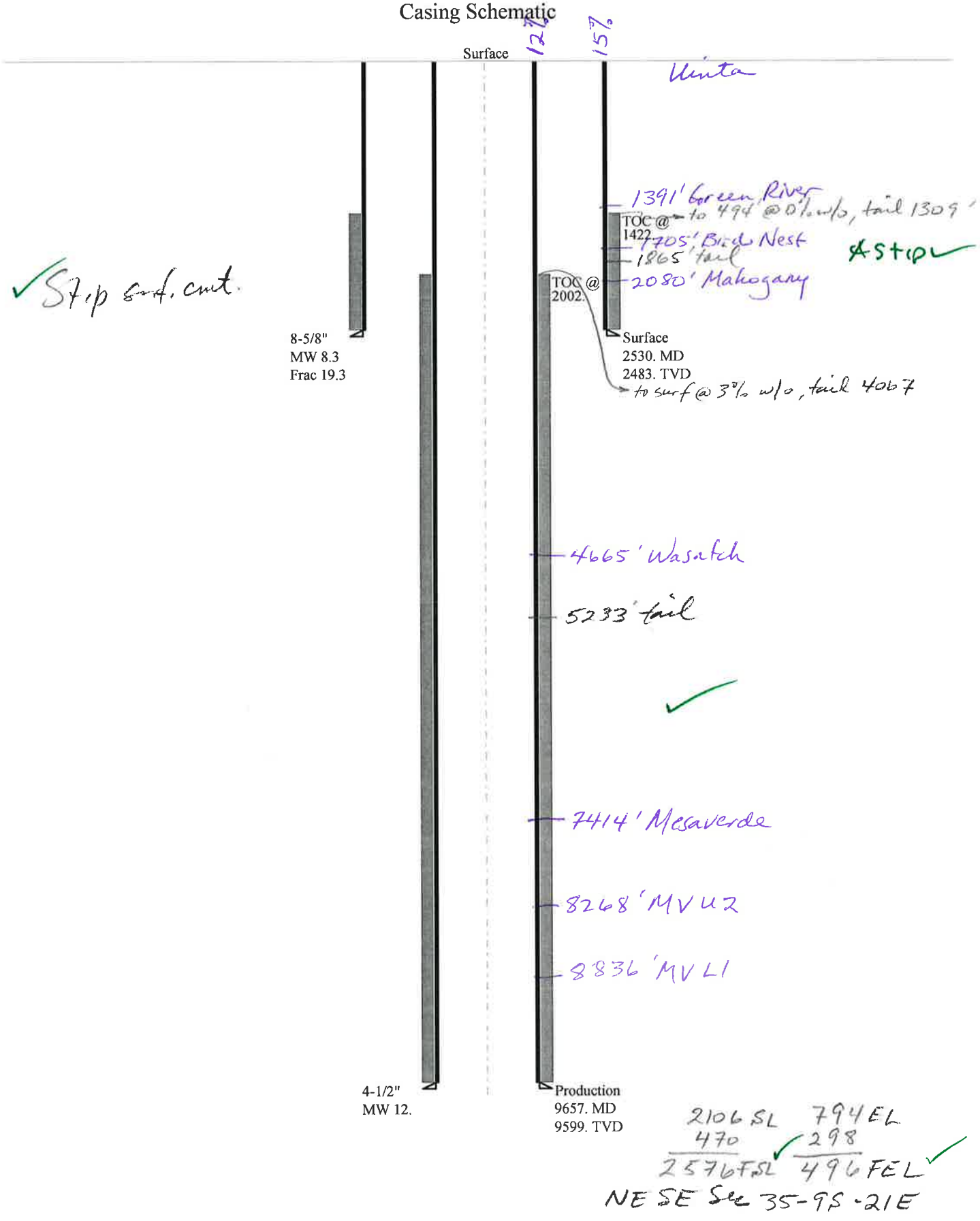
Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

'APIWellNo:43047513690000'

43047513690000 NBU 921-35I1BS

Casing Schematic



Stip surf. cmt.

Stip

2106 SL 794 EL
470 298
2576 FSL 496 FEL
NE SE Sec 35-9S-21E

'APIWellNo:43047513690000'

Well name:	**43047513690000 NBU 921-35I1BS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-51369
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,226 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,524 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 2,217 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 109 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,422 ft

Directional Info - Build & Drop
Kick-off point 300 ft
Departure at shoe: 431 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 13.08 °

Re subsequent strings:
Next setting depth: 9,599 ft
Next mud weight: 12.000 ppg
Next setting BHP: 5,984 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,530 ft
Injection pressure: 2,530 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2530	8.625	28.00	I-55	LT&C	2483	2530	7.892	100188

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1075	1880	1.749	2524	3390	1.34	69.5	348	5.00 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: December 13,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2483 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

'APIWellNo:43047513690000'

Well name:	**43047513690000 NBU 921-35I1BS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-51369
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight:	12.000 ppg
Internal fluid density:	1.000 ppg

Burst

Max anticipated surface pressure:	3,872 psi
Internal gradient:	0.220 psi/ft
Calculated BHP	5,984 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 7,935 ft

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	208 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	2,002 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	557 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9657	4.5	11.60	I-80	LT&C	9599	9657	3.875	127472

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5485	6360	1.159	5984	7780	1.30	111.4	212	1.90 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: December 13,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9599 ft, a mud weight of 12 ppg An internal gradient of .052 psi/ft was used for collapse from TD to
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

'APIWellNo:43047513690000'

From: Jim Davis
To: Bonner, Ed; Hill, Brad; Mason, Diana
CC: Curry, Kristine; Danielle Piernot; Garrison, LaVonne; Hayden, Martha;...
Date: 12/22/2010 5:49 AM
Subject: Kerr McGee APD approvals in 9S 21E Sec 35
Attachments: KMG approvals 921-35 on 12.22.2010.xls

The following wells have been approved by SITLA under the following arch and paleo stipulations. This is a long list, so I'm attaching a spreadsheet with the same information.

A note on arch and paleo stipulations: Wells that have an arch note "non-significant site" do not need to be avoided or mitigated. Only those that say "needs to be avoided".
The paleo reports make recommendations for "spot paleo monitoring" or "full paleo monitoring". It is my understanding that Kerr McGee is taking these stipulations and doing full monitoring in either case, in an abundance of caution.
-Jim Davis

Well Name	API	Paleo Stipulations	Arch Stipulations
Kerr-McGee's NBU 921-35A1BS	API #4304751339	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35A4CS	API #4304751340	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35B1BS	API #4304751341	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35B4BS	API #4304751342	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35B1CS	API #4304751343	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)	
Kerr-McGee's NBU 921-35B4CS	API #4304751344	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)	
Kerr-McGee's NBU 921-35C1BS	API #4304751345	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)	
Kerr-McGee's NBU 921-35C4BS	API #4304751346	IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)	
Kerr-McGee's NBU 921-35C1CS	API #4304751347	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35D1BS	API #4304751348	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35D1CS	API #4304751349	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35D4CS	API #4304751350	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35C4CS	API #4304751351	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35E1CS	API #4304751352	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35E2AS	API #4304751353	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35F1BS	API #4304751355	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35F4BS	API #4304751356	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35F4CS	API #4304751357	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)	
Kerr-McGee's NBU 921-35K1BS	API #4304751358	IPC 10-97 Full Paleo Monitoring (U-07-	

'APIWellNo:43047513690000'

MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K1CS API #4304751359 IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35G1BS API #4304751360 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G1CS API #4304751361 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4BS API #4304751362 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4CS API #4304751363 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35J1S API #4304751364 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35H1BS API #4304751365 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H1CS API #4304751366 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4BS API #4304751367 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4CS API #4304751368 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1BS API #4304751369 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1CS API #4304751370 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4BS API #4304751371 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4CS API #4304751372 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J1CS API #4304751373 IPC 10-98 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J4BS API #4304751374 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4BS API #4304751375 IPC 10-99 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4CS API #4304751376 IPC 10-99 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1BS API #4304751377 IPC 10-99 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1CS API #4304751378 IPC 10-99 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E4CS API #4304751379 IPC 10-99 Spot Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P4CS API #4304751380 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1CS API #4304751381 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1BS API #4304751382 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35O4CS API #4304751383 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O4BS API #4304751384 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O1CS API #4304751385 IPC 10-100 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35L1BS API #4304751386 IPC 10-99 Spot Paleo Monitoring

'APIWellNo:43047513690000'

(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35O1BS API #4304751387 IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35N4CS API #4304751388 IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35L1CS API #4304751389 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35L4CS API #4304751390 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35M1BS API #4304751391 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35M1CS API #4304751392 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35M4BS API #4304751393 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35M4CS API #4304751394 IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N4BS API #4304751395 IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 921-35I1BS				
API Number	43047513690000	**APD No**	3202	**Field/Unit**	NATURAL BUTTES
Location: 1/4,1/4	NESE **Sec** 35 **Tw** 9.0S **Rng** 21.0E	2106	FSL	794	FEL
GPS Coord (UTM)	627063 4427611	**Surface Owner**			

Participants

See other comments:

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 43.4 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35I pad will be enlarged to include six gas wells to be directionally drilled. They are the NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS and NBU 921-35J4BS. The pad extends a small existing pad containing the CIGE 28 producing gas well in all directions. Terrain in the area is moderately gentle. To the south is a high rocky ridge with exposed bedrock cliffs and boulders. Also to the south is a swale and road which will not be affected. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about 1/8 mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only suitable site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	**Width** 352 **Length** 475	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a poor desert shrub type, which includes rabbit brush, Indian ricegrass, horsebrush, stipa commata, greasewood, broom snakeweed, shadscale and halogeton.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?**

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 120’ x 260’ x 12’ deep located in a cut on the southwest corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Lovell Young, Grizz Oleen, Charles Chase, Colby Sutton, Doyle Holmes, Claudia Sass, (Kerr McGee), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA) and Ben Williams, (UDWR).

Floyd Bartlett	11/30/2010
Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3202	43047513690000	SITLA	GW	S	No

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.	**Surface Owner-APD**	
Well Name	NBU 921-35I1BS	**Unit**	NATURAL BUTTES
Field	NATURAL BUTTES	**Type of Work**	DRILL
Location	NESE 35 9S 21E S 2106 FSL 794 FEL	GPS Coord (UTM)	627074E 4427613N

Geologic Statement of Basis

Kerr McGee proposes to set 2,530’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,450'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 35. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill	12/20/2010
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 43.4 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35I pad will be enlarged to include six gas wells to be directionally drilled. They are the NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS and NBU 921-35J4BS. The pad extends a small existing pad containing the CIGE 28 producing gas well in all directions. Terrain in the area is moderately gentle. To the south is a high rocky ridge with exposed bedrock cliffs and boulders. Also to the south is a swale and road which will not be affected. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about 1/8 mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only suitable site in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location excepted as covered above. SITLA provided a seed mix to be used when reclaiming the site.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett	11/30/2010
Onsite Evaluator	**Date / Time**

'APIWellNo:43047513690000'

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/23/2010 **API NO. ASSIGNED:** 43047513690000

WELL NAME: NBU 921-35I1BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NESE 35 090S 210E **Permit Tech Review:** ☑

SURFACE: 2106 FSL 0794 FEL **Engineering Review:** ☑

BOTTOM: 2572 FSL 0496 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.99103 **LONGITUDE:** -109.51158

UTM SURF EASTINGS: 627074.00 **NORTHINGS:** 4427613.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22582 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-35I1BS
API Well Number: 43047513690000
Lease Number: ML 22582
Surface Owner: STATE
Approval Date: 12/27/2010

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14 commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Surface casing shall be cemented to the surface.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22582

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047513690000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/5/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pit Refurb/ ACTS

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this multi-well pad for completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as an ACTS staging pit to be utilized for other completion operations in the area. The trucks will unload water into these tanks before the water is placed into the refurbed pit. The purpose of the frac tanks is to collect any hydro-carbons that may have been associated with the other completion operations before releasing into the pit. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
Date: 04/04/2011
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 3/31/2011

RECEIVED Mar. 31, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047513690000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED Mar. 31, 2011

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# CAPSTAR #310
Submitted By SHEILA WOPSOCK Phone Number 435.781.7024
Well Name/Number NBU 921-35I1BS
Qtr/Qtr NESE Section 35 Township 9S Range 21E
Lease Serial Number ML-22582
API Number 4304751369

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 05/21/2011 1030 HRS AM ☑ PM ☐

Casing – Please report time casing run starts, not cementing times.

☑ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

Date/Time 06/14/2011 0800 HRS AM ☑ PM ☐

BOPE

☐ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT ~~KENNY GATHINGS AT 435.781.7048 FOR MORE~~

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22582

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047513690000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 5/25/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 05/25/2011 AT 1330 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/26/2011

RECEIVED May. 26, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751371	NBU 921-35I4BS		NESE	35	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/23/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 05/23/2011 AT 1400 HRS BHL= NESE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751370	NBU 921-35I1CS		NESE	35	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/24/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 05/24/2011 AT 1430 HRS. BHL= NESE

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751369	NBU 921-35I1BS		NESE	35	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/25/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL ON 05/25/2011 AT 1330 HRS. BHL= NESE

ACTION CODES:
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)
Signature
REGULATORY ANALYST
Title
5/26/2011
Date

RECEIVED
MAY 26 2011
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22582

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047513690000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 6/11/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON JUNE 8, 2011. DRILLED SURFACE HOLE TO 2550'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/13/2011

RECEIVED Jun. 13, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047513690000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/8/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pit Utilization

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this multi-well pad for the completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as an ACTS staging pit to be utilized for other completion operations in the area. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections. The following wells are on the NBU 921-35I Pad: NBU 921-35I1BS, NBU 921-35I1CS, NBU 921-35I4BS, NBU 921-35I4CS, NBU 921-35J1CS & NBU 921-35J4BS.

Approved by the Utah Division of Oil, Gas and Mining

Date: 06/22/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II
SIGNATURE N/A		**DATE** 6/8/2011

Please Review Attached Conditions of Approval

RECEIVED Jun. 08, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047513690000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED Jun. 08, 2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435- 790-2921
Well Name/Number NBU 921-35I1BS
Qtr/Qtr NE/4 SE/4 Section 35 Township 9S Range 21E
Lease Serial Number ML 22582
API Number 43047513690000

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _ _ AM ☐ PM ☐

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AUG 3 1 2011
DIV. OF OIL, GAS & MINING

BOPE
☒ Initial BOPE test at surface casing point
☐ Other

Date/Time 9/1/11 4 AM ☒ PM ☐

Rig Move
Location To: _____

Date/Time _ _ AM ☐ PM ☐

Remarks

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22582

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047513690000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 9/7/2011	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: RIG REL. - ACTS PIT

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2550' TO 9665' ON SEPT 6, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER RIG 54 ON SEPT 7, 2011 @ 23:59 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 09/13/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 9/8/2011

RECEIVED Sep. 08, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 22582

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-35I1BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047513690000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 9/7/2011	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
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☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
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	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: RIG REL. - ACTS PIT

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MIRU ROTARY RIG. FINISHED DRILLING FROM 2550' TO 9665' ON SEPT 6, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER RIG 54 ON SEPT 7, 2011 @ 23:59 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE		**DATE**
N/A		9/8/2011

RECEIVED Sep. 08, 2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435- 790-2921
Well Name/Number NBU 921-35I1BS
Qtr/Qtr NE/4 SE/4 Section 35 Township 9S Range 21E
Lease Serial Number ML 22582
API Number 43047513690000

Casing – Time casing run starts, not cementing times.

☒ Production Casing
☐ Other

Date/Time 9/6/11 10 AM ☒ PM ☐

BOPE
☐ Initial BOPE test at surface casing point
☐ Other

Date/Time _ _ AM ☐ PM ☐

RECEIVED
SEP 07 2011
DIV. OF OIL, GAS & MINING

Rig Move
Location To: _____

Date/Time _ _ AM ☐ PM ☐

Remarks

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 22582

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-35I1BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047513690000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

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CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ DRILLING REPORT Report Date: 10/31/2011	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/31/2011 AT 1730 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE		**DATE**
N/A		11/1/2011

RECEIVED Nov. 01, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML 22582

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-35I1BS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047513690000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2106 FSL 0794 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

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Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE		**DATE**
N/A		11/1/2011

RECEIVED Nov. 01, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22582

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: UTU63047A

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: NBU 921-35I1BS

2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 4304751369

3. ADDRESS OF OPERATOR: P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217

PHONE NUMBER: (720) 929-6100

10 FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: NESE 2106 FSL 794 FEL S35, T9S, R21E

AT TOP PRODUCING INTERVAL REPORTED BELOW: NESE 2588 FSL 494 FEL S35, T9S, R21E

AT TOTAL DEPTH: NESE 2563 FSL 497 FEL S35, T9S, R21E BHL rvd by Hsm

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 35 9S 21E S

12. COUNTY: UINTAH

13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED	READY TO PRODUCE	17. ELEVATIONS (DF, RKB, RT, GL):
5/25/2011	9/6/2011	10/31/2011	☐	☑	5058 GL

18. TOTAL DEPTH:	19. PLUG BACK T.D.:	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET:
MD 9,665 TVD 9,602	MD 9,610 TVD 9,547		MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

HDIL/ZDL/CNGR-CBL/VDL/GR/CCL-CMI/GR/CCL-RSL/SM/GR/
CCL-SYNTHETIC TRIPLE COMBO

23.

WAS WELL CORED?	NO ☑	YES ☐	(Submit analysis)
WAS DST RUN?	NO ☑	YES ☐	(Submit report)
DIRECTIONAL SURVEY?	NO ☐	YES ☑	(Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,540		900		0	
7 7/8"	4 1/2" I-80	11.6#	0	9,653		1,612		720	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,550							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	7,609	9,198		
(B) WSMVD				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
7,609 9,198	0.36	120	Open ☑ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7609 - 9198	PUMP 8109 BBLS SLICK H2O & 166,074 LBS 30/50 OTTAWA SAND
	5 STAGES

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

RECEIVED
DEC 05 2011
DIV. OF OIL, GAS & MINING

(5/2000) (CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
10/31/2011	11/15/2011	24		0	1,501	176	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	1,196	1,913					0	1,501	176	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,460
				BIRD'S NEST	1,721
				MAHOGANY	2,139
				WASATCH	4,755
				MESAVERDE	7,384

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210'of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) GINA BECKER TITLE REGULATORY ANALYST

SIGNATURE DATE 11/29/2011

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

RECEIVED

DEC 0 5 2011

DIV. OF OIL, GAS & MINING

(5/2000)

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011
Project: UTAH-UINTAH	Site: NBU 921-35I PAD	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011	End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/8/2011	14:00 - 15:00	1.00	MIRU	01	C	P		MOVE RIG IN OFF THE NBU 921-35I1CS
	15:00 - 16:30	1.50	MIRU	01	B	P		SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.
	16:30 - 17:00	0.50	DRLSUR	06	A	P		P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8012 . 7/8 LOBE .17 RPM. M/U 12.25" Q507 SN 7133232 12TH RUN, W/ 7-18'S. INSTALL RUBBER
	17:00 - 18:30	1.50	DRLSUR	02	B	P		SPUD SURFACE 06/08/2011 @ 17:00 HRS. DRILL 12.1/4" SURFACE HOLE F/40'-210' (170' @ 113'/HR) PSI ON/ OFF 700/450, UP/ DOWN/ ROT 27/22/25. 532 GPM, 45 RPM ON TOP DRIVE,90 RPM ON MM, 15-18K WOB
	18:30 - 19:00	0.50	DRLSUR	06	A	P		TOH,L/D 12 1/4" SURF. BIT
	19:00 - 21:00	2.00	DRLSUR	06	A	P		M/U 11" Q 506 SURF. BIT,P/U DIR TOOLS & SCRIBE,TIH T/210'
	21:00 - 0:00	3.00	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 210'-560' (350' @ 117'/HR) PSI ON/ OFF940/740, UP/ DOWN/ ROT 52/48/56. 136 SPM, 5532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
6/9/2011	0:00 - 6:30	6.50	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 560'-1320' (760' @ 117'/HR) PSI ON/ OFF1200/970, UP/ DOWN/ ROT 62/49/58. 136 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
	6:30 - 17:00	10.50	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/1320'-2120' (800' @ 76'/HR) PSI ON/ OFF1450/1200, UP/ DOWN/ ROT 70/55/60. 136 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, LOST PARTIAL RETURNS @ 1580',RUN AIR AS NEEDED TO MAINTAIN CIRCULATION & RESERVE PIT LEVEL
	17:00 - 22:00	5.00	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/2120'-2420' (300' @ 60'/HR) PSI ON/ OFF1500/1300, UP/ DOWN/ ROT 72/57/62. 136 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, LOST PARTIAL RETURNS @ 1580',RUN AIR AS NEEDED TO MAINTAIN CIRCULATION & RESERVE PIT LEVEL
	22:00 - 0:00	2.00	ALL	08	A	Z		AIR BOOSTER WOULD NOT IDLE UP,LOST PRIME TO PIT PUMP DUE TO LOW WATER IN RESERVE PIT,DUMP CEMENT WATER OUT OF FRAC TANKS INTO RESERVE PIT,WORK ON PIT PUMP,WAIT ON BACK UP AIR BOOSTER F/YARD
6/10/2011	0:00 - 4:00	4.00	ALL	08	A	Z		INSTALL BACK UP AIR BOOSTER,RE PRIME RESERVE PIT PUMP,ATTEMPT T/PUMP THRU DRILL STRING,DRILL STRING PLUGGED
	4:00 - 8:00	4.00	ALL	08	A	Z		TOH W/PLUGGED DRILL STRING (MM & 11" SURF. BIT PLUGGED)
	8:00 - 8:30	0.50	ALL	08	A	Z		L/D BHA,DIR. TOOLS & MM,UNPLUG BIT
	8:30 - 15:00	6.50	ALL	08	A	Z		P/U NEW 1.83 DEG .17 RPG HUNTING 8" MM,M/U 11" BIT,P/U DIR TOOLS & SCRIBE,P/BHA & TIH TO 2420',WASH THE LAST 90' T/BOTTEM

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011		End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 16:00	1.00	ALL	08	B	Z		ATTEMPT T/DRILL 11" DIR SURF. HOLE,MAIN BEARINGS OUT ON TOPHEAD,(COULD NOT ROTATE)
	16:00 - 20:30	4.50	ALL	08	B	Z		TOH T/BHA
	20:30 - 21:30	1.00	ALL	08	B	Z		REPLACE TOP HEAD ON RIG
	21:30 - 23:30	2.00	ALL	08	B	Z		TIH T/2420',WASH THE LAST 60' T/BOTTEM
	23:30 - 0:00	0.50	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/2420'-2453' (33' @ 66'/HR) PSI ON/ OFF1350/1120, UP/ DOWN/ ROT 82/69/75. 136 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, LOST PARTIAL RETURNS @ 1580',RUN AIR AS NEEDED TO MAINTAIN CIRCULATION & RESERVE PIT LEVEL
6/11/2011	0:00 - 1:30	1.50	DRLSUR	02	D	P		DRILL/ SLIDE 11" SURFACE HOLE F/2453'-2550' (97' @ 65'/HR) PSI ON/ OFF1350/1120, UP/ DOWN/ ROT 82/69/75. 136 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, LOST PARTIAL RETURNS @ 1580',RUN AIR AS NEEDED TO MAINTAIN CIRCULATION & RESERVE PIT LEVEL(TD 11" DIR. SURF. HOLE @ 01:30)
	1:30 - 3:30	2.00	DRLSUR	05	C	P		CIRC & COND HOLE F/LD & 8 5/8" 28# SURF. CSG RUN
	3:30 - 8:00	4.50	DRLSUR	06	D	P		L/D DRILL STRING,BHA & DIR TOOLS
	8:00 - 9:00	1.00	CSG	12	A	P		MOVE CATWALK AND PIPE RACKS,MOVE CSG OVER TO WORK AREA,R/U T/RUN 8 5/8" 28# SURF. CSG
	9:00 - 11:00	2.00	CSG	12	C	P		HOLD SAFTEY MEEETING,RUN FLOAT SHOE ,SHOE JNT,BAFFLE & 56 JNTS 8 5/8" 28# LT&C CSG W/THE SHOE SET @2525' & THE BAFFLE @2479'
	11:00 - 11:30	0.50	CSG	12	B	P		INSTALL CEMENT HEAD,R/U PRO PETRO CEMENTERS
	11:30 - 13:00	1.50	CSG	12	E	P		HOLD SAFETY MEETING. TEST LINES TO 2000 PSI. PUMP 140 BBLS OF 8.4# H20 AHEAD,NO RETURNS PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 180 SX(122.4 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 250 SX (51 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG ON FLY AND DISPLACE W/152 BBLS OF 8.4# H20. LIFT PRESSURE WAS 300 PSI, BUMP PLUG AND HOLD 800 PSI FOR 5 MIN. FLOAT HELD,NO RETURNS THRU OUT JOB ,NO CEMENT TO SURF.
	13:00 - 13:30	0.50	CSG	12	F	P		TOP OUT W/175 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE,NO CEMENT TO SURF.
	13:30 - 15:00	1.50	CSG	13	A	P		WAIT ON CEMENT
	15:00 - 15:30	0.50	CSG					TOP OUT W/175 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE,NO CEMENT TO SURF(RELEASE RIG @ 15:30 06/11/2011),06/13/2011,TOP OUT W/120 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE,CEMENT T/SURF. STAYED @ SURF.
9/1/2011	3:00 - 4:00	1.00	DRLPRO	01	A	P		SKID RIG TO THE NBU 921-35I1BS
	4:00 - 5:00	1.00	DRLPRO	14	A	P		N/U BOPE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011		End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	5:00 - 9:00	4.00	DRLPRO	15	A	P		TEST BOPE, RAMS & ALL VALVES 250 LOW-5000 HIGH, ANN 2500, CASING 1500 F/ 30 MIN'S, STRATA TO 3000
	9:00 - 9:30	0.50	DRLPRO	14	B	P		INSTALL WEAR BUSHING, PRE-SPUD INSPECTION
	9:30 - 13:00	3.50	DRLPRO	06	A	P		M/U BIT #1 SEC 65M, MM, DIR TOOLS & SCRIBE (CHANGE OUT NMDC & SUBS CAUSE OF WEAR), TIH TO 2292'
	13:00 - 14:00	1.00	DRLPRO	09	A	P		CUT & SLIP 60' DRLG LINE
	14:00 - 16:00	2.00	DRLPRO	02	F	P		TAG CEMENT @ 2422, DRLG CEMENT, F/E & OPEN HOLE TO 2565'
	16:00 - 17:00	1.00	DRLPRO	02	D	P		DRLG F/ 2565 TO 2861', 296' @ 296' PH WOB / 18-20 - RPM 55, MM 159 SPM 150 - GPM 568 MW 8.4, VIS 26 TRQ ON/OFF = 6-5 K PSI ON /OFF = 1700-1300 , DIFF 250-500 SLIDE = 47' IN .5 HRS = 94' PH ROT = 249' IN .5 HRS = 498' PH
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRLG F/ 2861 TO 4188', 1327' @ 204.2' PH WOB / 18-20 - RPM 55, MM 159 SPM 150 - GPM 568 MW 8.4, VIS 26, CIRC RESERVE PIT W/ GEL & POLY SWEEPS TRQ ON/OFF = 6-5 K PSI ON /OFF = 1900-1600 , DIFF 250-500 PU/SO/RT = 130-110-120 SLIDE = 58' IN .67 HRS = 86.6' PH ROT = 1269' IN 5.83 HRS = 217.6' PH STRATA - OFF LINE 0 CONN FLARE, 0 BACKGROUND FLARE 42.97 N & 53.94 W OF TARGET CENTER
9/2/2011	0:00 - 14:00	14.00	DRLPRO	02	D	P		DRLG F/ 4188' TO 6179', 1991' @ 142.2' PH WOB / 18-20 - RPM 55, MM 159 SPM 150 - GPM 568 MW 8.4, VIS 26, CIRC RESERVE PIT W/ GEL & POLY SWEEPS TRQ ON/OFF = 9-8 K PSI ON /OFF = 2100-1800 , DIFF 250-500 PU/SO/RT = 170-120-150 SLIDE = 98' IN 1.67 HRS = 58.7' PH ROT = 1893' IN 12.33 HRS = 153.5' PH STRATA - OFF LINE 0 CONN FLARE, 0 BACKGROUND FLARE 27 N & 21.75 W OF TARGET CENTER
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE RIG

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011		End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DRLG F/ 6179' TO 6976', 797' @ 83.9' PH WOB / 18-20 - RPM 55, MM 159 SPM 150 - GPM 568 MW 8.8, VIS 28, CIRC RESERVE PIT W/ GEL & POLY SWEEPS TRQ ON/OFF = 10-9 K PSI ON /OFF = 2100-1800 , DIFF 250-500 PU/SO/RT = 200-125-155 SLIDE = ROT = 100% STRATA - OFF LINE 10' CONN FLARE, 0 BACKGROUND FLARE 19.35 N & 7.05 W OF TARGET CENTER
9/3/2011	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRLG F/ 6976' TO 7983', 1007' @ 67.1' PH WOB / 18-20 - RPM 55, MM 159 SPM 150 - GPM 568 MW 8.6, VIS 26, CIRC RESERVE PIT W/ GEL & POLY SWEEPS TRQ ON/OFF = 11-9 K PSI ON /OFF = 2300-2000 , DIFF 250-500 PU/SO/RT = 200-150-170 SLIDE = 120' IN 3.17 HRS = 37.9' PH ROT = 887' IN 11.83 HRS = 75' PH STRATA - OFF LINE 10' CONN FLARE, 0 BACKGROUND FLARE 6.5 N & 6 E OF TARGET CENTER
	15:00 - 15:30	0.50	DRLPRO	07	A	P		SERVICE RIG, BOP DRILL 75 SEC, F/T ANN & HCR VALVE
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DRLG F/ 7983' TO 8350', 367' @ 43.2' PH WOB / 22-24 - RPM 55, MM 159 SPM 150 - GPM 568 MW 9.4, VIS 35 START LIGHT MUD UP @ 8200' LOST @ 100 BBLS TO FORMATION TRQ ON/OFF = 12-10 K PSI ON /OFF = , DIFF 250-500 PU/SO/RT = 200-155-175 SLIDE = 89' IN 3.41 HRS = 26' PH ROT = 278' IN 5.09 HRS = 54.6' PH STRATA - ON LINE @ 8000' AP DRLG 100 CONN 300 20' CONN FLARE, 5' BACKGROUND FLARE 2.85N & 5.88 E OF TARGET CENTER
9/4/2011	0:00 - 14:00	14.00	DRLPRO	02	D	P		DRLG F/ 8350' TO 8836', 486' @ 34.7' PH WOB / 22-24 - RPM 55, MM 127 SPM 120 - GPM 454 MW 9.7, VIS 37 TRQ ON/OFF = 13-11 K PSI ON /OFF = 2100-1800 , DIFF 250-400 PU/SO/RT = 200-155-175 SLIDE = 37' IN 1.83 HRS = 20.2' PH ROT = 449' IN 12.17 HRS = 36.9' PH STRATA - ON LINE @ 8000' AP DRLG 100 CONN 300 20' CONN FLARE, 5' BACKGROUND FLARE 2.5 S & 2.5 W OF TARGET CENTER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011		End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE RIG, BOP DRILL 79 SEC, F/T PIPE RAMS & HCR VALVE
	14:30 - 21:00	6.50	DRLPRO	02	D	P		DRLG F/ 8836' TO 9038', 202' @ 31' PH WOB / 22-24 - RPM 55, MM 127 SPM 120 - GPM 454 MW 9.7, VIS 37 TRQ ON/OFF = 13-11 K PSI ON /OFF = 2100-1800 , DIFF 250-400 PU/SO/RT = 200-155-175 SLIDE = ROT = 100% ROT STRATA - ON LINE @ 8000' AP DRLG 100 CONN 300 20' CONN FLARE, 5' BACKGROUND FLARE 6.51 S & 5' W OF TARGET CENTER
	21:00 - 22:00	1.00	DRLPRO	05	G	P		DISPLACE 9.7 MUD W/ 12.3 MUD F/ TRIP LOST CIRC, POOH FILLING HOLE W/ 11.5 PPG & 15% LCM FOR RETURNS
	22:00 - 0:00	2.00	DRLPRO	06	A	P		POOH F/ MM
9/5/2011	0:00 - 10:00	10.00	DRLPRO	06	A	P		TFNB, CHANGE OUT BIT & MM, MM LOCKED UP, TIH, WORK TIGHT HOLE 8100', 5200' OUT, 4600' 8960' IN
	10:00 - 10:30	0.50	DRLPRO	03	D	P		WASH & REAM 120' TO BOTTOM 10' FILL
	10:30 - 16:30	6.00	DRLPRO	02	D	P		DRLG F/ 9038' TO 9307', 269' @ 44.8' PH WOB / 18-20 - RPM 55, MM 137 SPM 110 - GPM 454 MW 11.6, VIS 45 TRQ ON/OFF = 11-9 K PSI ON /OFF = 2500-2100 , DIFF 200-400 PU/SO/RT = 220-140-180 SLIDE = 19' IN 1 HR = 19' PH ROT = 250' IN 5 HRS = 50' PH STRATA - OFF LINE 20' BOTTOMS UP FLARE, 0' BACKGROUND FLARE 10.75 S & 7.5 W OF TARGET CENTER
	16:30 - 17:00	0.50	DRLPRO	07	A	P		SERVICE RIG, BOP DRILL 77 SEC, F/T ANN & HCR VALVE
	17:00 - 0:00	7.00	DRLPRO	02	D	P		DRLG F/ 9307' TO 9620', 313' @ 52.2' PH WOB / 18-20 - RPM 55, MM 137 SPM 110 - GPM 416 MW 11.7, VIS 45 TRQ ON/OFF = 11-9 K PSI ON /OFF = 2500-2100 , DIFF 200-400 PU/SO/RT = 220-140-180 SLIDE = ROT = 100% ROT STRATA - OFF LINE 5' BOTTOMS UP FLARE, 0' BACKGROUND FLARE 12.96 S & .5 W OF TARGET CENTER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING	Start Date: 5/9/2011		End Date: 9/8/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/6/2011	0:00 - 1:00	1.00	DRLPRO	02	D	P		DRLG F/ 9620' TO 9665', 45' @ 45' PH WOB / 18-20 - RPM 55, MM 137 SPM 110 - GPM 416 MW 11.8, VIS 45 TRQ ON/OFF = 11-9 K PSI ON /OFF = 2500-2100 , DIFF 200-400 PU/SO/RT = 220-140-180 SLIDE = ROT = 100% ROT STRATA - OFF LINE 5' BOTTOMS UP FLARE, 0' BACKGROUND FLARE 12.96 S & .5 W OF TARGET CENTER
	1:00 - 2:30	1.50	DRLPRO	05	F	P		PUMP HIGH VIS SWEEP, CIRC HOLE CLEAN
	2:30 - 9:00	6.50	DRLPRO	06	E	P		SHORT TRIP TO SHOE, WASH TIGHT HOLE @ 6200',
	9:00 - 11:00	2.00	DRLPRO	05	C	P		PUMP HIGH VIS SWEEP, CIRC F/ LDDS, RAISE MW TO 12.1, 20' FLARE 15 MIN INTO CIRC FOR 15 MIN'S, LOST 50 BBLS TO FORMATION @ 12.1 PPG, VIS 48
	11:00 - 20:30	9.50	DRLPRO	06	B	P		HPJSM W/ RIG & L/D CREWS, R/U & LDDS & BHA, R/D
	20:30 - 0:00	3.50	DRLPRO	11	C	P		HPJSM W/ RIG & LOGGING CREWS, R/U & OPEN HOLE LOGS TO 6016' HIT BRIDGE COULD NOT WORK THROUGH, LOG OUT, R/D
9/7/2011	0:00 - 0:30	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING
	0:30 - 9:30	9.00	DRLPRO	12	C	P		HPJSM W/ RIG & CASING CREWS, R/U & RUN 228 JTS I-80 BT&C 4.5" + 2 MARKERS SHOE @ 9653' FLOAT @ 9609' MESA MARKER @ 7499' WASATCH MARKER @ 4742'
	9:30 - 11:00	1.50	DRLPRO	05	D	P		CIRC OUT GAS 5' FLARE FOR 5 MIN'S
	11:00 - 12:00	1.00	DRLPRO	12	E	P		HPJSM W/ RIG & CEMENTING CREWS, R/U & PSI TEST LINES TO 6000#, POP-OFF TO 5000 PSI, PUMP 5 BBLS SPACER, 20 SKS SCAV 11 PPG 3.16 YLD, LEAD 432 SKS 12 PPG 2.3 YLD, TAIL 20 SKS 14.3 PPG 1.31 YLD, SHUT DOWN CMT KNIFE GATE CAME APART
	12:00 - 17:00	5.00	DRLPRO	21	D	Z		TURN OVER TO RIG & CIRC OUT CEMENT, CIRC HOLE, WATING FOR CEMENT FROM YARD, FIXED KNIFE GATE, RAM BACKED OUT OF KNIFE GATE
	17:00 - 20:00	3.00	DRLPRO	12	E	P		CEMENT PROD CASING AS PER PROGRAM, W/ 50 BBLS LEAD TO PIT, 1180 SX TAIL
	20:00 - 20:30	0.50	DRLPRO	14	B	P		SET C-22 SLIPS W/ 125 K
	20:30 - 0:00	3.50	DRLPRO					N/D MAKE ROUGH CUT, CLEAN PITS & RELEASE RIG TO THE NBU 18C4BS @ 9/8/11 00:00 HRS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-35I1BS (BLACK)	**Wellbore No.**	OH
Well Name	NBU 921-35I1BS	**Wellbore Name**	NBU 921-35I1BS
Report No.	1	**Report Date**	10/14/2011
Project	UTAH-UINTAH	**Site**	NBU 921-35I PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	10/7/2011	**End Date**	10/31/2011
Spud Date	6/8/2011	**Active Datum**	RKB @5,077.00usft (above Mean Sea Level)
UWI	NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

1.3 General

Contractor		**Job Method**	PERFORATE	**Supervisor**	
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	7,609.0 (usft)-9,198.0 (usft	**Start Date/Time**	10/17/2011 12:00AM
No. of Intervals	22	**End Date/Time**	10/17/2011 12:00AM
Total Shots	0	**Net Perforation Interval**	40.00 (usft)
Avg Shot Density	0.00 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/17/2011 12:00AM	MESAVERDE/			7,609.0	7,610.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

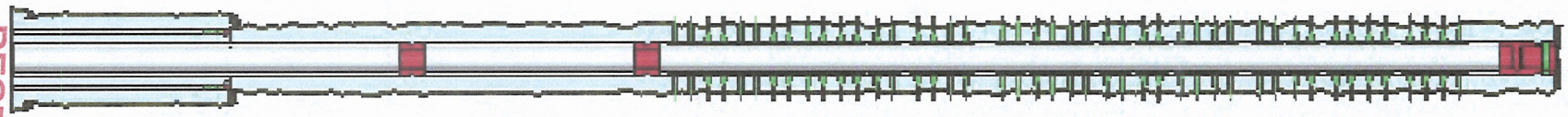
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/17/2011 12:00AM	MESAVERDE/			7,635.0	7,636.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,662.0	7,664.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,687.0	7,688.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,730.0	7,732.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,765.0	7,766.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,827.0	7,830.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,963.0	7,966.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			7,985.0	7,987.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,269.0	8,270.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,311.0	8,312.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,348.0	8,350.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,421.0	8,423.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,500.0	8,502.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,588.0	8,590.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
10/17/2011 12:00AM	MESAVERDE/			8,626.0	8,628.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,810.0	8,812.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,869.0	8,871.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			8,994.0	8,996.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			9,032.0	9,034.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			9,160.0	9,162.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
10/17/2011 12:00AM	MESAVERDE/			9,196.0	9,198.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/31/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/7/2011	7:00 - 15:00	8.00	COMP	33	C	P		MIRU B&C TESTERS, FILL SURFACE CSG, P/T 4-1/2 CSG, 1,000# W/ 9# LOSS IN 15 MIN. 3,500# W/ 32# LOSS IN 15 MIN. 7,000# W/ 68# LOSS IN 30 MIN. [GOOD TEST] NO COMMUNICATION W/ SURFACE.
10/17/2011	6:45 - 7:00	0.25	COMP	48		P		HSM, REVIEW PRE FRAC INTRUCTIONS. MMIRU CASED HOLE SOLUTIONS / SUPERIOR FRAC EQUIP.
	7:00 - 7:00	0.00	COMP	36	B	P		PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D STG#1] PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.
10/18/2011	6:45 - 7:00	0.25	COMP	48		P		HSM, STAYING AWAY FROM HIGH PRESSURE LINE
	7:00 - 17:00	10.00	COMP	36	B	P		FRAC STG #1] WHP=1,588#, BRK DN PERFS=3,651#, @=4.5 BPM, INJ RT=46.6, INJ PSI=5,998#, INITIAL ISIP=2,722#, INITIAL FG=.74, FINAL ISIP=3,000#, FINAL FG=.77, AVERAGE RATE=49.3, AVERAGE PRESSURE=5,777#, MAX RATE=50.5, MAX PRESSURE=6,180#, NET PRESSURE INCREASE=278#, 19/24 78% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,901', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #2] WHP=2,148#, BRK DN PERFS=3,222#, @=4 BPM, INJ RT=46.2, INJ PSI=5,976#, INITIAL ISIP=2,382#, INITIAL FG=.71, FINAL ISIP=2,368#, FINAL FG=.71, AVERAGE RATE=49.7, AVERAGE PRESSURE=5,341#, MAX RATE=50.7, MAX PRESSURE=6,350#, NET PRESSURE INCREASE=-14#, 17/24 72% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,532', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN.
10/19/2011	6:45 - 7:00	0.25	COMP	48		P		HSM, PINCH POINTS / R/D

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/31/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		FRAC STG #3] WHP=1,592#, BRK DN PERFS=2,665#, @=3.8 BPM, INJ RT=50, INJ PSI=4,619#, INITIAL ISIP=2,142#, INITIAL FG=.69, FINAL ISIP=2,638#, FINAL FG=.76, AVERAGE RATE=50, AVERAGE PRESSURE=4,696#, MAX RATE=50.6, MAX PRESSURE=5,508#, NET PRESSURE INCREASE=536#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,017', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #4] WHP=950#, BRK DN PERFS=2,430#, @=4.2 BPM, INJ RT=49.8, INJ PSI=4,848#, INITIAL ISIP=1,483#, INITIAL FG=.63, FINAL ISIP=2,373#, FINAL FG=.74, AVERAGE RATE=50.1, AVERAGE PRESSURE=4,224#, MAX RATE=50.5, MAX PRESSURE=5,157#, NET PRESSURE INCREASE=890#, 19/24 80% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,796', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #5] WHP=1,550#, BRK DN PERFS=2,018#, @=4.6 BPM, INJ RT=50.3, INJ PSI=4,377#, INITIAL ISIP=1,666#, INITIAL FG=.66, FINAL ISIP=2,327#, FINAL FG=.74, AVERAGE RATE=50.1, AVERAGE PRESSURE=4,202#, MAX RATE=50.4, MAX PRESSURE=5,277#, NET PRESSURE INCREASE=661#, 23/24 97% CALC PERFS OPEN. X OVER TO WIRE LINE P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,559' TOTAL FLUID PUMP'D=8,109 BBLS TOTAL SAND PUMP'D=166,074#
10/31/2011	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35I1BS (BLACK)	Spud Conductor: 5/31/2011	Spud Date: 6/8/2011	
Project: UTAH-UINTAH	Site: NBU 921-35I PAD		Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION	Start Date: 10/7/2011		End Date: 10/31/2011
Active Datum: RKB @5,077.00usft (above Mean Sea Level)	UWI: NE/SE/0/9/S/21/E/35/0/0/26/PM/S/2106/E/0/794/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:30	10.50	COMP	30	A	P		MIRU - SPOT EQUIP. SICP 0 PSI. NDWH, NU BOPs. RU FLOOR & TBG EQUIP. (CHANGE OUT TBG TONGS - 1 HR) PREP & TALLY TBG. PU 3 7/8" BIT, POBS & XN NIPPLE. RIH ON 238 JTS 2 3/8" TBG. TAG FILL @ 7552'. LD 2 JTS. RD TBG EQUIP., RU PWR SWVL & PMP. EST CIRC. PT CSG & BOPs TO 3000 PSI & HOLD 15 MIN. (0 PSI LOSS) C/O SND & D/O CBPs HALCO CBP @ PSI FCP C/O FILL D/O CBP DIFF CBP #1 @ 7559' 05 FT 09 MIN 600 PSI 050 PSI CBP #2 @ 7796' 27 FT 03 MIN 200 PSI 200 PSI CBP #3 @ 8022' 25 FT 03 MIN 300 PSI 200 PSI CBP #4 @ 8532' 30 FT 06 MIN 500 PSI 500 PSI CBP #5 @ 8901' 37 FT 05 MIN 300 PSI 500 PSI C/O TO 9333'. (BTM PERF @ 9198', PBTD @ 9608). FCP = 500 PSI. PMP 20 BBLS TMAC & CIRC WELL CLEAN. ND PWR SWVL, NU TBG EQUIP. LD 25 JTS ON FLOAT, (44 TOTAL ON FLOAT). LND TBG ON HNGR W/269 JTS NEW 2 3/8" 4.7# L80 TBG @ 8549.69'. RD FLOOR & TBG EQUIP. ND BOP, DROP BALL, NUWH. PMP OFF BIT W/6 BBLS TMAC @ 2400 PSI. WAIT 30 MIN FOR BIT TO FALL TO BTM. TURN WELL TO F.B.C. KB 19' HANGER 0.83' XN NIPPLE 1.33' TBG 269 JTS = 8527.38' XN NIPPLE @ 8547.31' EOT @ 8549.69' (314 JTS DLVRD - 44 JTS RTND) TWTR = 8109 BBLS TWR = 1430 BBLS TWLTR = 6679 SICP = 1250 PSI, SITP = 0 PSI.

Scientific Drilling
Rocky Mountain Operations

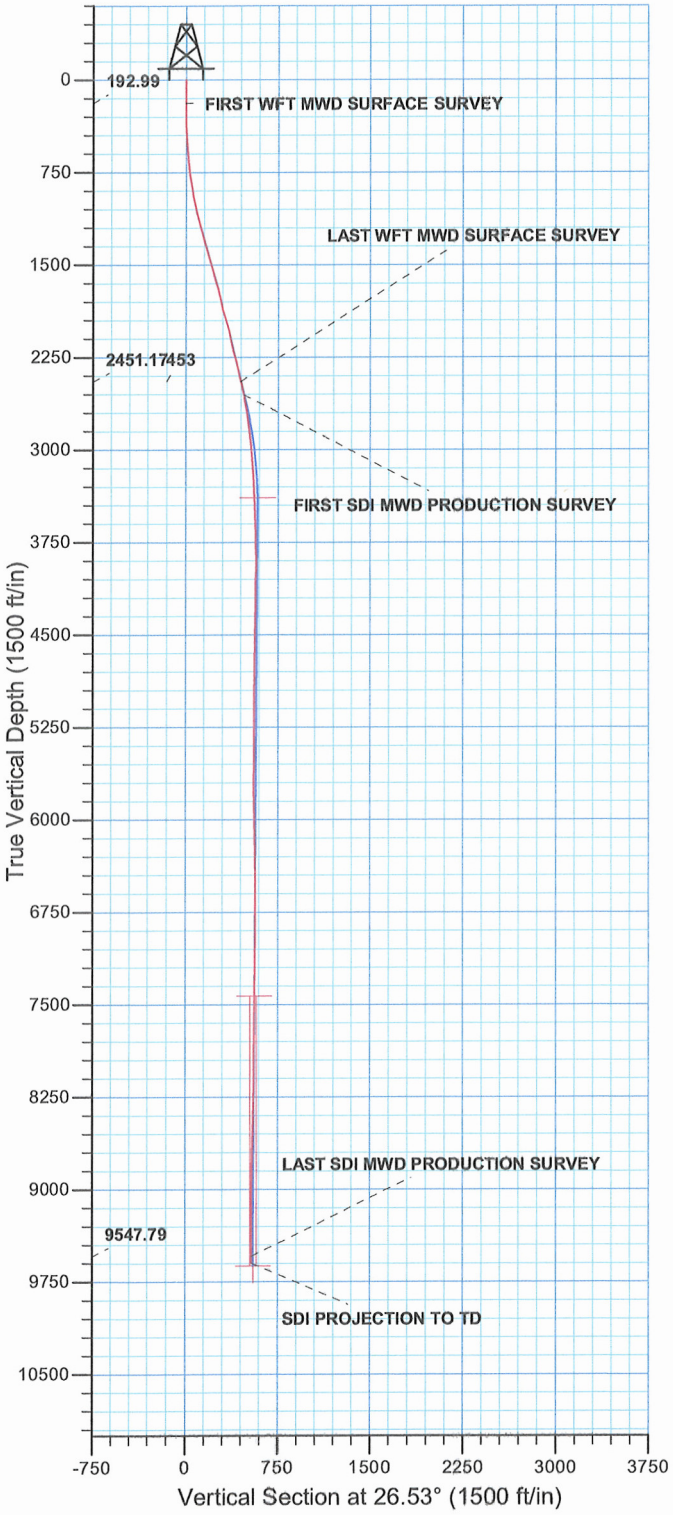
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35I PAD
Well: NBU 921-35I1BS
Wellbore: OH
Design: OH

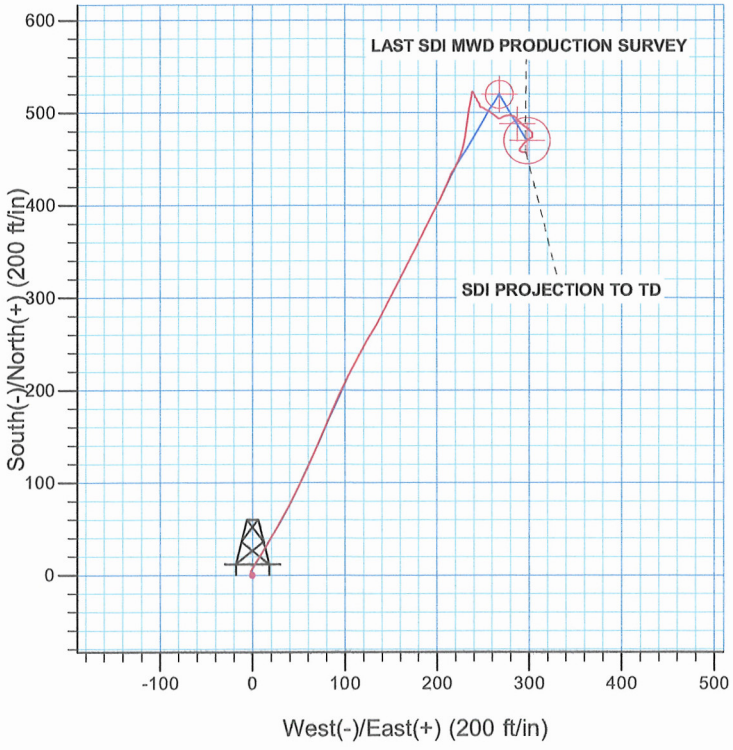
Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-35I1BS					
GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14526287.62	2057312.73	39° 59' 27.996 N	109° 30' 41.825 W

Azimuths to True North
Magnetic North: 11.06°

Magnetic Field
Strength: 52304.1snT
Dip Angle: 65.85°
Date: 08/19/2011
Model: IGRF2010





PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 35 T9S R21E
System Datum:	Mean Sea Level

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Design: OH (NBU 921-35I1BS/OH)	
Created By: RobertScott	Date: 13:05, September 08 2011

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 921-35I PAD
NBU 921-35I1BS

OH

Design: OH

Standard Survey Report

08 September, 2011

Anadarko Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	UINTAH_NBU 921-35I PAD, SECTION 35 T9S R21E				
Site Position:		**Northing:**	14,526,246.73 usft	**Latitude:**	39° 59' 27.596 N
From:	Lat/Long	**Easting:**	2,057,284.25 usft	**Longitude:**	109° 30' 42.199 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.96 °

Well	NBU 921-35I1BS, 2106' FSL 794' FEL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,526,287.63 usft	**Latitude:**	39° 59' 27.996 N
	+E/-W	0.00 ft	**Easting:**	2,057,312.72 usft	**Longitude:**	109° 30' 41.825 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,058.00 ft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	08/19/11	11.06	65.85	52,304

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	26.53	

Survey Program **Date** 09/08/11

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
15.00	2,505.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,611.00	9,665.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
193.00	0.89	314.93	192.99	0.98	-0.98	0.44	0.50	0.50	0.00
FIRST WFT MWD SURFACE SURVEY									
277.00	1.13	336.76	276.98	2.20	-1.77	1.18	0.53	0.29	25.99
365.00	1.60	18.53	364.96	4.16	-1.72	2.95	1.21	0.53	47.47
455.00	2.50	32.11	454.90	7.01	-0.28	6.15	1.13	1.00	15.09
545.00	4.00	33.11	544.75	11.31	2.48	11.22	1.67	1.67	1.11
635.00	5.69	29.24	634.43	17.83	6.38	18.80	1.91	1.88	-4.30
725.00	6.81	31.86	723.89	26.25	11.37	28.57	1.28	1.24	2.91

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
815.00	8.44	30.11	813.09	36.50	17.50	40.48	1.83	1.81	-1.94
905.00	10.31	28.86	901.89	49.27	24.70	55.12	2.09	2.08	-1.39
995.00	12.06	30.61	990.17	64.42	33.38	72.54	1.98	1.94	1.94
1,085.00	13.69	26.74	1,077.91	82.02	42.96	92.57	2.05	1.81	-4.30
1,175.00	14.75	23.74	1,165.15	102.02	52.36	114.67	1.43	1.18	-3.33
1,265.00	16.19	24.36	1,251.89	123.94	62.15	138.65	1.61	1.60	0.69
1,355.00	16.10	24.49	1,338.34	146.73	72.50	163.66	0.11	-0.10	0.14
1,445.00	16.06	23.61	1,424.82	169.49	82.66	188.56	0.27	-0.04	-0.98
1,535.00	15.44	23.49	1,511.44	191.88	92.42	212.96	0.69	-0.69	-0.13
1,625.00	15.63	26.86	1,598.15	213.69	102.67	237.05	1.02	0.21	3.74
1,715.00	14.19	26.61	1,685.12	234.37	113.09	260.20	1.60	-1.60	-0.28
1,805.00	13.75	30.24	1,772.46	253.47	123.42	281.91	1.09	-0.49	4.03
1,895.00	14.43	30.07	1,859.75	272.42	134.43	303.78	0.76	0.76	-0.19
1,985.00	15.13	28.36	1,946.77	292.46	145.63	326.71	0.92	0.78	-1.90
2,075.00	14.50	26.24	2,033.78	312.90	156.19	349.71	0.92	-0.70	-2.36
2,165.00	13.88	26.99	2,121.04	332.63	166.07	371.78	0.72	-0.69	0.83
2,255.00	13.88	26.86	2,208.41	351.87	175.84	393.37	0.03	0.00	-0.14
2,345.00	13.63	26.24	2,295.83	371.02	185.41	414.77	0.32	-0.28	-0.69
2,435.00	14.19	27.36	2,383.19	390.33	195.17	436.40	0.69	0.62	1.24
2,505.00	13.36	25.45	2,451.17	405.25	202.59	453.06	1.35	-1.19	-2.73
LAST WFT MWD SURFACE SURVEY									
2,611.00	10.99	24.50	2,554.78	425.50	212.04	475.41	2.24	-2.24	-0.90
FIRST SDI MWD PRODUCTION SURVEY									
2,706.00	9.41	27.32	2,648.28	440.64	219.36	492.23	1.74	-1.66	2.97
2,801.00	7.83	21.78	2,742.20	453.55	225.33	506.44	1.88	-1.66	-5.83
2,895.00	6.86	13.34	2,835.43	464.96	229.00	518.29	1.54	-1.03	-8.98
2,990.00	5.72	7.98	2,929.86	475.17	230.96	528.30	1.35	-1.20	-5.64
3,085.00	5.54	6.75	3,024.40	484.42	232.16	537.11	0.23	-0.19	-1.29
3,180.00	4.75	8.33	3,119.02	492.86	233.27	545.16	0.84	-0.83	1.66
3,275.00	4.48	6.57	3,213.71	500.44	234.26	552.38	0.32	-0.28	-1.85
3,369.00	3.69	10.18	3,307.47	507.06	235.22	558.73	0.88	-0.84	3.84
3,465.00	2.37	11.85	3,403.34	512.05	236.17	563.62	1.38	-1.38	1.74
3,559.00	2.11	10.79	3,497.26	515.65	236.89	567.17	0.28	-0.28	-1.13
3,654.00	1.67	5.61	3,592.21	518.74	237.36	570.14	0.50	-0.46	-5.45
3,749.00	1.06	14.84	3,687.18	520.97	237.72	572.30	0.68	-0.64	9.72
3,844.00	0.88	10.35	3,782.17	522.54	238.07	573.86	0.21	-0.19	-4.73
3,938.00	0.35	85.94	3,876.17	523.27	238.49	574.70	0.92	-0.56	80.41
4,033.00	0.44	171.72	3,971.16	522.93	238.83	574.54	0.57	0.09	90.29
4,128.00	1.32	157.39	4,066.15	521.56	239.31	573.53	0.95	0.93	-15.08
4,223.00	1.76	146.93	4,161.12	519.32	240.52	572.07	0.55	0.46	-11.01
4,318.00	1.14	157.57	4,256.09	517.23	241.68	570.72	0.71	-0.65	11.20
4,412.00	1.14	148.34	4,350.07	515.57	242.53	569.61	0.20	0.00	-9.82
4,507.00	1.32	152.56	4,445.05	513.79	243.53	568.47	0.21	0.19	4.44

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,602.00	1.41	148.96	4,540.02	511.82	244.63	567.20	0.13	0.09	-3.79
4,697.00	1.85	157.39	4,634.98	509.40	245.83	565.57	0.53	0.46	8.87
4,792.00	0.97	152.74	4,729.95	507.27	246.78	564.09	0.93	-0.93	-4.89
4,887.00	0.44	101.14	4,824.95	506.49	247.51	563.71	0.82	-0.56	-54.32
4,981.00	1.06	110.28	4,918.94	506.12	248.68	563.90	0.67	0.66	9.72
5,076.00	1.64	121.38	5,013.91	505.10	250.66	563.88	0.67	0.61	11.68
5,171.00	1.49	113.80	5,108.88	503.90	252.96	563.82	0.27	-0.16	-7.98
5,266.00	1.76	118.37	5,203.84	502.71	255.37	563.84	0.32	0.28	4.81
5,361.00	1.58	118.28	5,298.80	501.39	257.81	563.75	0.19	-0.19	-0.09
5,456.00	1.76	134.37	5,393.76	499.75	260.00	563.26	0.53	0.19	16.94
5,550.00	2.20	132.08	5,487.70	497.53	262.37	562.34	0.48	0.47	-2.44
5,645.00	1.85	130.94	5,582.64	495.31	264.88	561.47	0.37	-0.37	-1.20
5,740.00	0.70	126.46	5,677.62	493.96	266.51	560.98	1.21	-1.21	-4.72
5,835.00	1.23	82.51	5,772.60	493.74	267.99	561.45	0.92	0.56	-46.26
5,929.00	1.41	61.07	5,866.58	494.44	270.00	562.97	0.56	0.19	-22.81
6,024.00	1.23	57.29	5,961.55	495.55	271.88	564.81	0.21	-0.19	-3.98
6,119.00	1.23	73.90	6,056.53	496.39	273.72	566.38	0.37	0.00	17.48
6,214.00	1.14	72.67	6,151.51	496.95	275.60	567.72	0.10	-0.09	-1.29
6,309.00	1.19	76.83	6,246.49	497.46	277.46	569.01	0.10	0.05	4.38
6,404.00	1.06	93.83	6,341.47	497.62	279.30	569.98	0.38	-0.14	17.89
6,499.00	0.97	108.61	6,436.46	497.31	280.94	570.43	0.29	-0.09	15.56
6,594.00	0.79	111.87	6,531.45	496.81	282.31	570.59	0.20	-0.19	3.43
6,688.00	0.79	120.74	6,625.44	496.23	283.47	570.59	0.13	0.00	9.44
6,783.00	1.06	121.53	6,720.43	495.44	284.78	570.47	0.28	0.28	0.83
6,878.00	1.14	140.17	6,815.41	494.25	286.13	570.01	0.38	0.08	19.62
6,973.00	1.41	136.56	6,910.39	492.68	287.54	569.24	0.30	0.28	-3.80
7,068.00	1.14	135.42	7,005.36	491.16	289.01	568.53	0.29	-0.28	-1.20
7,163.00	1.32	132.70	7,100.34	489.74	290.48	567.92	0.20	0.19	-2.86
7,258.00	1.32	127.07	7,195.31	488.34	292.15	567.41	0.14	0.00	-5.93
7,353.00	1.65	127.34	7,290.28	486.85	294.11	566.96	0.35	0.35	0.28
7,448.00	1.32	129.97	7,385.25	485.32	296.04	566.45	0.35	-0.35	2.77
7,543.00	1.49	129.27	7,480.22	483.83	297.84	565.92	0.18	0.18	-0.74
7,638.00	1.93	131.91	7,575.18	481.98	299.98	565.22	0.47	0.46	2.78
7,732.00	1.67	143.42	7,669.13	479.83	301.98	564.18	0.47	-0.28	12.24
7,827.00	0.97	147.20	7,764.11	478.04	303.24	563.15	0.74	-0.74	3.98
7,923.00	0.26	169.87	7,860.10	477.14	303.72	562.56	0.77	-0.74	23.61
8,018.00	0.35	249.59	7,955.10	476.83	303.48	562.17	0.42	0.09	83.92
8,113.00	0.62	177.35	8,050.10	476.21	303.23	561.51	0.64	0.28	-76.04
8,208.00	0.70	164.95	8,145.09	475.14	303.41	560.63	0.17	0.08	-13.05
8,303.00	0.88	196.77	8,240.08	473.88	303.35	559.48	0.49	0.19	33.49
8,397.00	1.14	242.47	8,334.07	472.76	302.31	558.01	0.87	0.28	48.62
8,493.00	1.49	240.10	8,430.04	471.69	300.38	556.19	0.37	0.36	-2.47
8,587.00	1.32	236.85	8,524.02	470.49	298.42	554.24	0.20	-0.18	-3.46
8,682.00	1.23	236.76	8,618.99	469.34	296.65	552.42	0.09	-0.09	-0.09

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,776.00	1.32	218.30	8,712.97	467.93	295.13	550.48	0.45	0.10	-19.64
8,871.00	1.32	212.06	8,807.94	466.15	293.87	548.32	0.15	0.00	-6.57
8,966.00	1.58	217.51	8,902.91	464.18	292.49	545.95	0.31	0.27	5.74
9,062.00	1.23	209.86	8,998.89	462.24	291.18	543.62	0.41	-0.36	-7.97
9,156.00	1.49	202.13	9,092.86	460.23	290.21	541.39	0.34	0.28	-8.22
9,251.00	0.70	110.81	9,187.85	458.88	290.29	540.22	1.75	-0.83	-96.13
9,346.00	1.14	106.51	9,282.83	458.41	291.74	540.44	0.47	0.46	-4.53
9,440.00	1.23	108.53	9,376.81	457.82	293.59	540.75	0.11	0.10	2.15
9,535.00	0.97	95.43	9,471.80	457.42	295.36	541.18	0.38	-0.27	-13.79
9,611.00	0.62	96.84	9,547.79	457.31	296.41	541.55	0.46	-0.46	1.86
LAST SDI MWD PRODUCTION SURVEY									
9,665.00	0.62	96.84	9,601.79	457.24	296.99	541.74	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
193.00	192.99	0.98	-0.98	FIRST WFT MWD SURFACE SURVEY
2,505.00	2,451.17	405.25	202.59	LAST WFT MWD SURFACE SURVEY

Checked By: _____ Approved By: _____ Date: _____

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Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 921-35I PAD
NBU 921-35I1BS

OH

Design: OH

Survey Report - Geographic

08 September, 2011

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DIV. OF OIL, GAS & MINING

Anadarko
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	UINTAH_NBU 921-35I PAD, SECTION 35 T9S R21E				
Site Position:		**Northing:**	14,526,246.73 usft	**Latitude:**	39° 59' 27.596 N
From:	Lat/Long	**Easting:**	2,057,284.25 usft	**Longitude:**	109° 30' 42.199 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.96 °

Well	NBU 921-35I1BS, 2106' FSL 794' FEL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,526,287.63 usft	**Latitude:**	39° 59' 27.996 N
	+E/-W	0.00 ft	**Easting:**	2,057,312.72 usft	**Longitude:**	109° 30' 41.825 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,058.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	08/19/11	11.06	65.85	52,304

Design	OH					
Audit Notes:						
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**		0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**		
	0.00	0.00	0.00	26.53		

Survey Program	**Date** 09/08/11		
From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
15.00	2,505.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,611.00	9,665.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,287.63	2,057,312.72	39° 59' 27.996 N	109° 30' 41.825 W
15.00	0.00	0.00	15.00	0.00	0.00	14,526,287.63	2,057,312.72	39° 59' 27.996 N	109° 30' 41.825 W
193.00	0.89	314.93	192.99	0.98	-0.98	14,526,288.59	2,057,311.73	39° 59' 28.006 N	109° 30' 41.837 W
FIRST WFT MWD SURFACE SURVEY									
277.00	1.13	336.76	276.98	2.20	-1.77	14,526,289.80	2,057,310.92	39° 59' 28.018 N	109° 30' 41.847 W
365.00	1.60	18.53	364.96	4.16	-1.72	14,526,291.76	2,057,310.93	39° 59' 28.037 N	109° 30' 41.847 W
455.00	2.50	32.11	454.90	7.01	-0.28	14,526,294.64	2,057,312.33	39° 59' 28.065 N	109° 30' 41.828 W
545.00	4.00	33.11	544.75	11.31	2.48	14,526,298.98	2,057,315.02	39° 59' 28.108 N	109° 30' 41.793 W
635.00	5.69	29.24	634.43	17.83	6.38	14,526,305.56	2,057,318.80	39° 59' 28.172 N	109° 30' 41.743 W
725.00	6.81	31.86	723.89	26.25	11.37	14,526,314.07	2,057,323.65	39° 59' 28.255 N	109° 30' 41.679 W
815.00	8.44	30.11	813.09	36.50	17.50	14,526,324.42	2,057,329.61	39° 59' 28.357 N	109° 30' 41.600 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
905.00	10.31	28.86	901.89	49.27	24.70	14,526,337.30	2,057,336.60	39° 59' 28.483 N	109° 30' 41.507 W
995.00	12.06	30.61	990.17	64.42	33.38	14,526,352.59	2,057,345.02	39° 59' 28.633 N	109° 30' 41.396 W
1,085.00	13.69	26.74	1,077.91	82.02	42.96	14,526,370.36	2,057,354.31	39° 59' 28.807 N	109° 30' 41.273 W
1,175.00	14.75	23.74	1,165.15	102.02	52.36	14,526,390.51	2,057,363.38	39° 59' 29.004 N	109° 30' 41.152 W
1,265.00	16.19	24.36	1,251.89	123.94	62.15	14,526,412.59	2,057,372.80	39° 59' 29.221 N	109° 30' 41.026 W
1,355.00	16.10	24.49	1,338.34	146.73	72.50	14,526,435.54	2,057,382.76	39° 59' 29.446 N	109° 30' 40.893 W
1,445.00	16.06	23.61	1,424.82	169.49	82.66	14,526,458.47	2,057,392.54	39° 59' 29.671 N	109° 30' 40.762 W
1,535.00	15.44	23.49	1,511.44	191.88	92.42	14,526,481.03	2,057,401.93	39° 59' 29.893 N	109° 30' 40.637 W
1,625.00	15.63	26.86	1,598.15	213.69	102.67	14,526,503.00	2,057,411.81	39° 59' 30.108 N	109° 30' 40.505 W
1,715.00	14.19	26.61	1,685.12	234.37	113.09	14,526,523.85	2,057,421.89	39° 59' 30.313 N	109° 30' 40.371 W
1,805.00	13.75	30.24	1,772.46	253.47	123.42	14,526,543.13	2,057,431.89	39° 59' 30.501 N	109° 30' 40.239 W
1,895.00	14.43	30.07	1,859.75	272.42	134.43	14,526,562.25	2,057,442.58	39° 59' 30.689 N	109° 30' 40.097 W
1,985.00	15.13	28.36	1,946.77	292.46	145.63	14,526,582.48	2,057,453.44	39° 59' 30.887 N	109° 30' 39.953 W
2,075.00	14.50	26.24	2,033.78	312.90	156.19	14,526,603.09	2,057,463.66	39° 59' 31.089 N	109° 30' 39.818 W
2,165.00	13.88	26.99	2,121.04	332.63	166.07	14,526,622.98	2,057,473.21	39° 59' 31.284 N	109° 30' 39.691 W
2,255.00	13.88	26.86	2,208.41	351.87	175.84	14,526,642.39	2,057,482.67	39° 59' 31.474 N	109° 30' 39.565 W
2,345.00	13.63	26.24	2,295.83	371.02	185.41	14,526,661.69	2,057,491.91	39° 59' 31.663 N	109° 30' 39.442 W
2,435.00	14.19	27.36	2,383.19	390.33	195.17	14,526,681.16	2,057,501.35	39° 59' 31.854 N	109° 30' 39.317 W
2,505.00	13.36	25.45	2,451.17	405.25	202.59	14,526,696.20	2,057,508.51	39° 59' 32.002 N	109° 30' 39.221 W
LAST WFT MWD SURFACE SURVEY									
2,611.00	10.99	24.50	2,554.78	425.50	212.04	14,526,716.61	2,057,517.63	39° 59' 32.202 N	109° 30' 39.100 W
FIRST SDI MWD PRODUCTION SURVEY									
2,706.00	9.41	27.32	2,648.28	440.64	219.36	14,526,731.87	2,057,524.69	39° 59' 32.351 N	109° 30' 39.006 W
2,801.00	7.83	21.78	2,742.20	453.55	225.33	14,526,744.88	2,057,530.44	39° 59' 32.479 N	109° 30' 38.929 W
2,895.00	6.86	13.34	2,835.43	464.96	229.00	14,526,756.35	2,057,533.92	39° 59' 32.592 N	109° 30' 38.882 W
2,990.00	5.72	7.98	2,929.86	475.17	230.96	14,526,766.59	2,057,535.72	39° 59' 32.693 N	109° 30' 38.857 W
3,085.00	5.54	6.75	3,024.40	484.42	232.16	14,526,775.85	2,057,536.76	39° 59' 32.784 N	109° 30' 38.841 W
3,180.00	4.75	8.33	3,119.02	492.86	233.27	14,526,784.32	2,057,537.73	39° 59' 32.868 N	109° 30' 38.827 W
3,275.00	4.48	6.57	3,213.71	500.44	234.26	14,526,791.91	2,057,538.60	39° 59' 32.942 N	109° 30' 38.814 W
3,369.00	3.69	10.18	3,307.47	507.06	235.22	14,526,798.55	2,057,539.44	39° 59' 33.008 N	109° 30' 38.802 W
3,465.00	2.37	11.85	3,403.34	512.05	236.17	14,526,803.55	2,057,540.31	39° 59' 33.057 N	109° 30' 38.790 W
3,559.00	2.11	10.79	3,497.26	515.65	236.89	14,526,807.16	2,057,540.97	39° 59' 33.093 N	109° 30' 38.780 W
3,654.00	1.67	5.61	3,592.21	518.74	237.36	14,526,810.26	2,057,541.39	39° 59' 33.123 N	109° 30' 38.775 W
3,749.00	1.06	14.84	3,687.18	520.97	237.72	14,526,812.50	2,057,541.71	39° 59' 33.145 N	109° 30' 38.770 W
3,844.00	0.88	10.35	3,782.17	522.54	238.07	14,526,814.07	2,057,542.04	39° 59' 33.161 N	109° 30' 38.765 W
3,938.00	0.35	85.94	3,876.17	523.27	238.49	14,526,814.81	2,057,542.44	39° 59' 33.168 N	109° 30' 38.760 W
4,033.00	0.44	171.72	3,971.16	522.93	238.83	14,526,814.47	2,057,542.79	39° 59' 33.165 N	109° 30' 38.756 W
4,128.00	1.32	157.39	4,066.15	521.56	239.31	14,526,813.11	2,057,543.29	39° 59' 33.151 N	109° 30' 38.749 W
4,223.00	1.76	146.93	4,161.12	519.32	240.52	14,526,810.90	2,057,544.54	39° 59' 33.129 N	109° 30' 38.734 W
4,318.00	1.14	157.57	4,256.09	517.23	241.68	14,526,808.82	2,057,545.73	39° 59' 33.108 N	109° 30' 38.719 W
4,412.00	1.14	148.34	4,350.07	515.57	242.53	14,526,807.17	2,057,546.61	39° 59' 33.092 N	109° 30' 38.708 W
4,507.00	1.32	152.56	4,445.05	513.79	243.53	14,526,805.42	2,057,547.64	39° 59' 33.074 N	109° 30' 38.695 W
4,602.00	1.41	148.96	4,540.02	511.82	244.63	14,526,803.46	2,057,548.78	39° 59' 33.055 N	109° 30' 38.681 W
4,697.00	1.85	157.39	4,634.98	509.40	245.83	14,526,801.06	2,057,550.01	39° 59' 33.031 N	109° 30' 38.666 W
4,792.00	0.97	152.74	4,729.95	507.27	246.78	14,526,798.95	2,057,551.00	39° 59' 33.010 N	109° 30' 38.653 W
4,887.00	0.44	101.14	4,824.95	506.49	247.51	14,526,798.18	2,057,551.74	39° 59' 33.002 N	109° 30' 38.644 W
4,981.00	1.06	110.28	4,918.94	506.12	248.68	14,526,797.83	2,057,552.92	39° 59' 32.999 N	109° 30' 38.629 W
5,076.00	1.64	121.38	5,013.91	505.10	250.66	14,526,796.85	2,057,554.92	39° 59' 32.989 N	109° 30' 38.604 W
5,171.00	1.49	113.80	5,108.88	503.90	252.96	14,526,795.68	2,057,557.23	39° 59' 32.977 N	109° 30' 38.574 W
5,266.00	1.76	118.37	5,203.84	502.71	255.37	14,526,794.53	2,057,559.66	39° 59' 32.965 N	109° 30' 38.543 W
5,361.00	1.58	118.28	5,298.80	501.39	257.81	14,526,793.26	2,057,562.12	39° 59' 32.952 N	109° 30' 38.512 W
5,456.00	1.76	134.37	5,393.76	499.75	260.00	14,526,791.65	2,057,564.34	39° 59' 32.936 N	109° 30' 38.484 W
5,550.00	2.20	132.08	5,487.70	497.53	262.37	14,526,789.47	2,057,566.75	39° 59' 32.914 N	109° 30' 38.453 W
5,645.00	1.85	130.94	5,582.64	495.31	264.88	14,526,787.29	2,057,569.30	39° 59' 32.892 N	109° 30' 38.421 W
5,740.00	0.70	126.46	5,677.62	493.96	266.51	14,526,785.97	2,057,570.95	39° 59' 32.878 N	109° 30' 38.400 W

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,835.00	1.23	82.51	5,772.60	493.74	267.99	14,526,785.78	2,057,572.43	39° 59' 32.876 N	109° 30' 38.381 W
5,929.00	1.41	61.07	5,866.58	494.44	270.00	14,526,786.50	2,057,574.43	39° 59' 32.883 N	109° 30' 38.355 W
6,024.00	1.23	57.29	5,961.55	495.55	271.88	14,526,787.65	2,057,576.29	39° 59' 32.894 N	109° 30' 38.331 W
6,119.00	1.23	73.90	6,056.53	496.39	273.72	14,526,788.51	2,057,578.11	39° 59' 32.902 N	109° 30' 38.307 W
6,214.00	1.14	72.67	6,151.51	496.95	275.60	14,526,789.11	2,057,579.99	39° 59' 32.908 N	109° 30' 38.283 W
6,309.00	1.19	76.83	6,246.49	497.46	277.46	14,526,789.65	2,057,581.84	39° 59' 32.913 N	109° 30' 38.259 W
6,404.00	1.06	93.83	6,341.47	497.62	279.30	14,526,789.84	2,057,583.67	39° 59' 32.915 N	109° 30' 38.236 W
6,499.00	0.97	108.61	6,436.46	497.31	280.94	14,526,789.56	2,057,585.32	39° 59' 32.912 N	109° 30' 38.214 W
6,594.00	0.79	111.87	6,531.45	496.81	282.31	14,526,789.08	2,057,586.70	39° 59' 32.907 N	109° 30' 38.197 W
6,688.00	0.79	120.74	6,625.44	496.23	283.47	14,526,788.53	2,057,587.86	39° 59' 32.901 N	109° 30' 38.182 W
6,783.00	1.06	121.53	6,720.43	495.44	284.78	14,526,787.75	2,057,589.19	39° 59' 32.893 N	109° 30' 38.165 W
6,878.00	1.14	140.17	6,815.41	494.25	286.13	14,526,786.59	2,057,590.56	39° 59' 32.881 N	109° 30' 38.148 W
6,973.00	1.41	136.56	6,910.39	492.68	287.54	14,526,785.04	2,057,592.00	39° 59' 32.866 N	109° 30' 38.130 W
7,068.00	1.14	135.42	7,005.36	491.16	289.01	14,526,783.54	2,057,593.49	39° 59' 32.851 N	109° 30' 38.111 W
7,163.00	1.32	132.70	7,100.34	489.74	290.48	14,526,782.15	2,057,594.98	39° 59' 32.837 N	109° 30' 38.092 W
7,258.00	1.32	127.07	7,195.31	488.34	292.15	14,526,780.78	2,057,596.68	39° 59' 32.823 N	109° 30' 38.070 W
7,353.00	1.65	127.34	7,290.28	486.85	294.11	14,526,779.32	2,057,598.67	39° 59' 32.808 N	109° 30' 38.045 W
7,448.00	1.32	129.97	7,385.25	485.32	296.04	14,526,777.82	2,057,600.62	39° 59' 32.793 N	109° 30' 38.020 W
7,543.00	1.49	129.27	7,480.22	483.83	297.84	14,526,776.37	2,057,602.44	39° 59' 32.778 N	109° 30' 37.997 W
7,638.00	1.93	131.91	7,575.18	481.98	299.98	14,526,774.55	2,057,604.61	39° 59' 32.760 N	109° 30' 37.970 W
7,732.00	1.67	143.42	7,669.13	479.83	301.98	14,526,772.43	2,057,606.64	39° 59' 32.739 N	109° 30' 37.944 W
7,827.00	0.97	147.20	7,764.11	478.04	303.24	14,526,770.66	2,057,607.94	39° 59' 32.721 N	109° 30' 37.928 W
7,923.00	0.26	169.87	7,860.10	477.14	303.72	14,526,769.77	2,057,608.43	39° 59' 32.712 N	109° 30' 37.922 W
8,018.00	0.35	249.59	7,955.10	476.83	303.48	14,526,769.46	2,057,608.20	39° 59' 32.709 N	109° 30' 37.925 W
8,113.00	0.62	177.35	8,050.10	476.21	303.23	14,526,768.84	2,057,607.96	39° 59' 32.703 N	109° 30' 37.928 W
8,208.00	0.70	164.95	8,145.09	475.14	303.41	14,526,767.77	2,057,608.15	39° 59' 32.692 N	109° 30' 37.926 W
8,303.00	0.88	196.77	8,240.08	473.88	303.35	14,526,766.51	2,057,608.12	39° 59' 32.680 N	109° 30' 37.926 W
8,397.00	1.14	242.47	8,334.07	472.76	302.31	14,526,765.37	2,057,607.10	39° 59' 32.669 N	109° 30' 37.940 W
8,493.00	1.49	240.10	8,430.04	471.69	300.38	14,526,764.27	2,057,605.19	39° 59' 32.658 N	109° 30' 37.965 W
8,587.00	1.32	236.85	8,524.02	470.49	298.42	14,526,763.04	2,057,603.24	39° 59' 32.646 N	109° 30' 37.990 W
8,682.00	1.23	236.76	8,618.99	469.34	296.65	14,526,761.85	2,057,601.49	39° 59' 32.635 N	109° 30' 38.013 W
8,776.00	1.32	218.30	8,712.97	467.93	295.13	14,526,760.42	2,057,600.00	39° 59' 32.621 N	109° 30' 38.032 W
8,871.00	1.32	212.06	8,807.94	466.15	293.87	14,526,758.62	2,057,598.77	39° 59' 32.604 N	109° 30' 38.048 W
8,966.00	1.58	217.51	8,902.91	464.18	292.49	14,526,756.63	2,057,597.43	39° 59' 32.584 N	109° 30' 38.066 W
9,062.00	1.23	209.86	8,998.89	462.24	291.18	14,526,754.66	2,057,596.14	39° 59' 32.565 N	109° 30' 38.083 W
9,156.00	1.49	202.13	9,092.86	460.23	290.21	14,526,752.64	2,057,595.21	39° 59' 32.545 N	109° 30' 38.095 W
9,251.00	0.70	110.81	9,187.85	458.88	290.29	14,526,751.29	2,057,595.31	39° 59' 32.532 N	109° 30' 38.094 W
9,346.00	1.14	106.51	9,282.83	458.41	291.74	14,526,750.84	2,057,596.77	39° 59' 32.527 N	109° 30' 38.076 W
9,440.00	1.23	108.53	9,376.81	457.82	293.59	14,526,750.29	2,057,598.63	39° 59' 32.521 N	109° 30' 38.052 W
9,535.00	0.97	95.43	9,471.80	457.42	295.36	14,526,749.91	2,057,600.40	39° 59' 32.517 N	109° 30' 38.029 W
9,611.00	0.62	96.84	9,547.79	457.31	296.41	14,526,749.82	2,057,601.45	39° 59' 32.516 N	109° 30' 38.016 W
LAST SDI MWD PRODUCTION SURVEY									
9,665.00	0.62	96.84	9,601.79	457.24	296.99	14,526,749.76	2,057,602.03	39° 59' 32.515 N	109° 30' 38.008 W
SDI PROJECTION TO TD									

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 921-35I1BS
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Site:	UINTAH_NBU 921-35I PAD	**MD Reference:**	GL 5058' & KB 19' @ 5077.00ft (PIONEER 54)
Well:	NBU 921-35I1BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
193.00	192.99	0.98	-0.98	FIRST WFT MWD SURFACE SURVEY
2,505.00	2,451.17	405.25	202.59	LAST WFT MWD SURFACE SURVEY
2,611.00	2,554.78	425.50	212.04	FIRST SDI MWD PRODUCTION SURVEY
9,611.00	9,547.79	457.31	296.41	LAST SDI MWD PRODUCTION SURVEY
9,665.00	9,601.79	457.24	296.99	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____